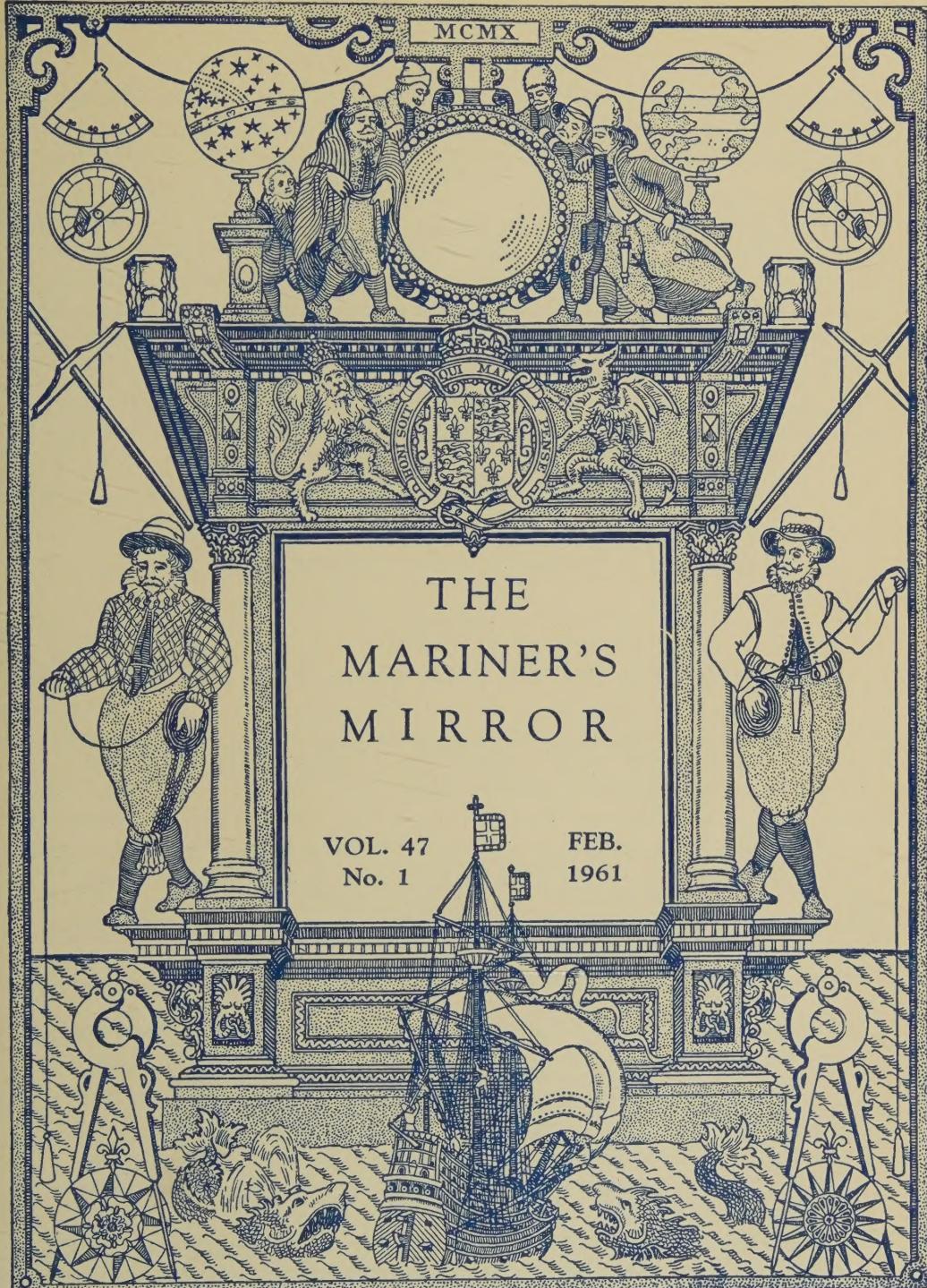


THE QUARTERLY JOURNAL of the SOCIETY FOR NAUTICAL RESEARCH



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THE SOCIETY FOR NAUTICAL RESEARCH

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To encourage research into nautical antiquities, into matters relating to seafaring and shipbuilding in all ages and among all nations, into the language and customs of the sea, and into other subjects of nautical interest.

The Society has erected a Monument to the Van de Veldes in St James's, Piccadilly, London; raised £107,000 to save Nelson's Flagship and has superintended the restoration of H.M.S. *Victory* to her appearance as at the Battle of Trafalgar; paved the way to the establishment of the National Maritime Museum at Greenwich and the *Victory* Museum at Portsmouth; organized exhibitions of Nelson relics and naval prints, etc.; and issued a number of periodical publications dealing with nautical archaeology, besides an inexpensive set of official plans (ten in number) for building a model of H.M.S. *Victory*.

The annual subscription of 30 shillings (\$4.30) entitles a member to receive *The Mariner's Mirror* and the Annual Report and to attend the Annual Meetings and the Annual Lectures.

For particulars of membership apply to

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NATIONAL MARITIME MUSEUM, GREENWICH, S.E. 10

CONTRIBUTIONS TO THE MARINER'S MIRROR

The aim of the Society being to arrive at true conclusions through free discussion, it is distinctly to be understood that the Editor is not held responsible for statements made in the *Journal*.

Contributions and correspondence should be addressed to G. R. G. WORCESTER, Esq., *Penny Cottage, Pound Lane, Windlesham, Surrey*. All articles, notes, queries, answers and reviews of books should be typed, on one side of the paper, preferably quarto, with double-spacing and with a wide margin. The name and address of the author must be given on the last page. As a general rule, the length of an article should not exceed 10,000 words and, owing to the high costs of production, photographs and line drawings to illustrate contributions must be restricted to a minimum.

Names of ships should be underlined to denote *italics*, and not written within inverted commas.

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NEW YORK: *Cambridge University Press, American Branch, 32 EAST 57TH STREET, 22;*
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The Mariner's Mirror was published monthly from January 1911 to September 1914 and from July 1919 to December 1923. Since then it has appeared quarterly. Single copies of either monthly or quarterly issues will be supplied, if available, at 15s. each or 12s. 6d. to Members (postage 5d.). Indexes will be supplied free to purchasers of complete volumes or separately at 2s. each.

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The MARINER'S MIRROR

VOL. 47. NO. 1

FEBRUARY 1961

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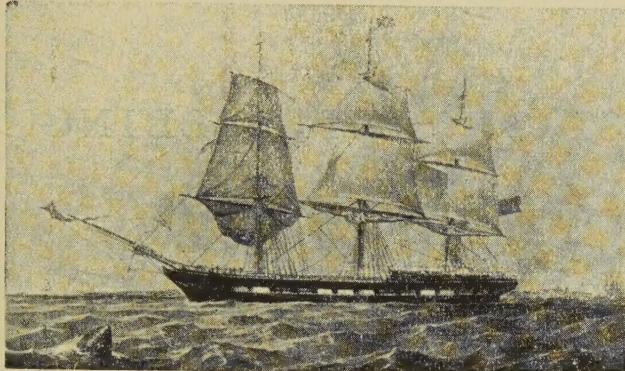
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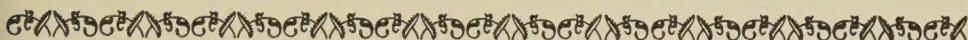
WHEREIN MAY BE DISCOVERED HIS
ART, CRAFT & MYSTERY

*after the manner of their
use in all ages and
among all
Nations*



VOL. 47. No. 1

1961



FOREWORD BY ADMIRAL OF THE FLEET
THE EARL MOUNTBATTEN OF BURMA, K.G.

Patron of the Society

AS Patron of the Society for Nautical Research, I should like to send a message of congratulation and admiration to the Society on the appearance of the Golden Jubilee number of *The Mariner's Mirror*. I am all the more happy because my Father, fifty years ago, played, I believe, no inconsiderable part in the Society's formation: was in fact its first President, an office which he held for the first eleven years of the Society's life and the last eleven years of his. As a boy I well remember how enthusiastically he spoke of it, and its very real importance to the country in fostering a wide knowledge and love of the sea.

Some of the Society's achievements are, I understand, recorded in subsequent pages. Here I would single out just two, which could not fail to stir the imagination of a young naval officer, as I then was—its brilliantly successful effort to save *H.M.S. Victory*, as a living inspiration for all time to our people, old and young; and its equally successful exertions to found the National Maritime Museum, a long overdue tribute to the unequalled services of our Royal and Merchant Navies.

All best wishes, then, to the Society and its Quarterly. May the second fifty years of their lives be as useful and profitable as the first.

MOUNTBATTEN OF BURMA

EDITORIAL

The year 1960 saw the 50th birthday of the Society for Nautical Research, and at such a time it is natural that we should pause to take stock of our position and look back at what has been achieved by the Society. This has been adequately, though modestly, covered by Dr Anderson in the pages that follow. The year 1961, of course, is also the golden jubilee of the *Mariner's Mirror*, and in order to mark these two auspicious occasions it is proposed to include in this volume a few 'features' which we should not normally be able to afford. These little, albeit expensive, extras will be spread over the volume so as to 'lighten the load'.

From the editorial point of view, looking back over the years (and I am sure I am writing for my predecessors as well), the past has been most encouraging. In these days of materialism we can take pride in the fact that all work connected with the *Mariner's Mirror* is entirely voluntary. Our contributors, drawn from different nations and professions and with varied viewpoints, having perhaps little in common with each other beyond their love of the sea and ships of all kinds, have given of their learning and experience to the journal without thought of material gain, but solely with the aim of advancing our knowledge of nautical technology.

This volume will have to mark not only the golden jubilee of the Society and the *Mariner's Mirror*, but also, nearly enough, a change of President. Dr R. C. Anderson has figured as Editor on no less than three separate occasions, he has been a Councillor for fifty years, contributing considerably more material than any other member of the Society, and has finally acted as President for nine years. He has been succeeded by Professor Michael Lewis, C.B.E., who has been a member of the Society for over forty years and Chairman for the past nine years.

We hope Dr Anderson in his retirement will continue his outstanding contributions to the *Mariner's Mirror* for very many years to come, and we wish Professor Michael Lewis a long and profitable term of office.

G. R. G. WORCESTER

THE FIRST FIFTY YEARS

By R. C. Anderson

ALTHOUGH this issue of *The Mariner's Mirror* calls itself 'Vol. 47, No. 1', it can fairly be described as a Jubilee Number, because 'Vol. 1, No. 1' appeared in January 1911. The discrepancy is due to the fact that the 4 years 1915-18, eventful as they were for the world in general, were blank as far as The Society for Nautical Research and its Journal were concerned. As a matter of purely bibliographical interest it may be mentioned that Vol. 4 (1914) ended with the September issue and Vol. 5 (1919) began with that for July. Publication was then monthly and remained so till the end of 1923.

This short account of some of the Society's activities during its first 50 years will be followed by a reprint of its first Editorial, written by L. G. Carr Laughton, and that, taken in conjunction with the three paragraphs of our Rule II, gives a good idea of what we set out to do. I think we can claim to have more than fulfilled the programme laid down by our founders, for we have done or are doing almost all of it and have also done much that we never contemplated.

Of our more spectacular achievements the first has been the preservation and restoration of H.M.S. *Victory*. In 1921 Lord Milford Haven, our first President, called attention to her serious condition and with the enthusiastic support of the Society urged the Admiralty to take steps for her safety. As a result she was moved into dry-dock and our Society was entrusted with the double task of raising the money and supervising its use to restore her as far as possible to her state at the time of Trafalgar, removing the many anachronisms which had been inflicted on her since that date. For some time money came in very slowly; it was not until the receipt of an anonymous contribution of £50,000 from Sir James Caird (the first of his many benefactions) that it was possible to start work. This was the beginning of the partnership between him and Sir Geoffrey Callender to which we owe so enormous a debt.

Work on the *Victory* began in 1923 and took some 10 years to complete. While it was still in progress the first steps were taken towards the establishment of a National Maritime Museum and this again was very largely the work of the Caird-Callender partnership, the one providing the money and the other pulling the necessary strings. It must, however, be emphasized that much of Callender's influence was due to his position as representative

of a Society already on the best of terms with the Admiralty. The first announcement that the Museum was to be established was made in 1927 and 10 years later King George VI performed the opening ceremony.

Then came the *Victory* Museum at Portsmouth, built, or rather converted from existing buildings, to accommodate exhibits which had gradually accumulated on board the ship, but were clearly out of place in her restored state. First planned in 1929, but delayed by various causes, it was opened in 1938 and at once proved a success, not only for its interest, but also for the way in which its admission fees helped to swell our Society's 'Save the *Victory* Fund'. After the war the building was enlarged and since the appointment in 1952 of Captain Jackson as Curator, this Museum has grown rapidly in both interest and importance.

As a result the 'Save the *Victory* Fund' has continued to grow in spite of heavy expenditure on the building, extending and equipping of the Museum and on the provision of suitable furniture on board the ship herself; so much so, that although 'Maintenance' of the ship has been recognized since 1929 as the responsibility of the Admiralty, our Council decided in 1955 to hand over £10,000 from that source as a contribution towards the cost of very extensive repairs made necessary by a serious combination of dry-rot and wood-beetle. These repairs are still going on and we have recently added another £10,000, still leaving the Fund in a flourishing state.

These visible evidences of our activity have been accompanied by many other useful pieces of work. As far back as 1913 we organized a small, but quite effective, historical display in the British Section of the Amsterdam Shipping Exhibition. In 1921 we produced the first of our 'Occasional Publications', now seven in number, a series of source-books mainly concerned with shipbuilding and rigging and with detailed lists of men-of-war of the sixteenth and seventeenth centuries. Since 1930 (except for the war years) we have had an annual lecture on subjects connected with our interests. In 1934, prompted by the present Director of the National Maritime Museum, we began to record the lines and equipment of the rapidly disappearing types of small craft of the British Isles. The work came to an end on the outbreak of war and has not been resumed, but the large collection of plans, now housed in the Museum, shows how energetically it was carried on.

As a preventative of 'swelled head' it may be salutary to record one partial failure. We meant to produce a book to commemorate the Society's coming of age in 1932. This *Maritime Miscellany* or 'Twenty-first Birthday Book' was planned as a series of thirty-two essays by specialists on different subjects giving a sort of resumé of knowledge as it then stood. Unfortunately Professor Callender (as he then was) was far too busy with the *Victory*, the

Museum and his many other activities to give much time to his self-imposed task of acting as General Editor, while some contributors were extremely slow in fulfilling their promises. When Sir Geoffrey died in 1946 only twelve sections were ready for printing and it was clear that the project must be abandoned. All that could be done was to print what was available in *The Mariner's Mirror* and to keep a stock of off-prints for separate sale, if required.

One failure, and that not complete, is not much to set against a large number of undoubted successes and it must be remembered that what has been written above is concerned only with 'extras', not with the Society's original programme. That has been carried out to the letter except for the production of a Nautical Dictionary, and even that is well under way. As for the publication of a Journal, we need only point to our forty-seven volumes. *The Mariner's Mirror* has been a success from the first and there is every reason to expect it to remain so for another 50 years and probably much longer.

The following is a reprint of the Editorial introduction to the first issue of *The Mariner's Mirror*. Though not altogether applicable to the present day, it gives a very clear idea of the original policy of the Society.

EDITORIAL

The history of the Society for Nautical Research may be said to have begun with the publication at Easter 1910 of a circular inviting support for the formation of a Society of Nautical Antiquaries. The response was prompt and gratifying. It was most satisfactory to notice that the answers and promises received came from students representing many different interests. Of these, of course, a large number were seamen by profession: but many others were men having only an indirect connexion with the sea. It was also gratifying to find that many of the applicants, having for long had some such scheme in mind, were in consequence prepared with useful suggestions. It resulted that much sound advice came quickly to hand and that it soon became apparent that more could be done than had originally been proposed.

This development is indicated by the change in the name proposed for the Society. Instead of being merely a body of antiquaries, as at first suggested, the Society, as ultimately formed, is a body of research students. It gains thereby, both in the extension of its field of activity and in the increase of its numbers. The decision to form a Society was come to at a preliminary General Meeting held in June. A Committee was then appointed to make

the necessary arrangements and this Committee reported to a first Annual General Meeting on 2 December 1910. Its report is by now in the hands of all its members.

At an early date an Editorial Sub-Committee was appointed to consider the production of the proposed Journal of the Society. This Sub-Committee has been made permanent under the Society's Rule XIII, its members at present being the Editor [Mr L. G. Carr Laughton], Mr John Leyland, Mr Alan H. Moore, Mr W. G. Perrin, Commander C. N. Robinson, R.N. and the Hon. Secretary and Treasurer [Mr Douglas Owen]. The policy which it is proposed to adopt in conducting *The Mariner's Mirror* is based upon the advice of this Committee.

A point on which it is desirable to insist with the greatest emphasis is that *The Mariner's Mirror* is intended to serve 'as a means of intercommunication between members of the Society'. In other words its success will depend on the measure of literary support which it obtains from members. This is not to say that members are invited to undertake research work for the express purpose of filling its pages; but that they are requested to use it freely as a repository for their discoveries, whether these are thrown into the form of articles or into brief notes, and as a medium whereby they may carry on their enquiries. We venture to hope that the columns to be devoted to *Queries* and their *Answers* will form by no means the least interesting or least valuable part of the Journal. The object of the Society is to make itself, as far as possible, able to answer nautical questions of all kinds and relating to all ages. Some time is likely to elapse before it approaches this high ideal; but its progress will be hastened if members will in the first place come forward freely with *Queries* which they wish to put; and, secondly, if they will give their help in answering *Queries* already inserted. This first issue contains a number of *Queries* which have for the most part been long unanswered. It is hoped that in the second number satisfactory answers may be given to at least the greater part of them.

It will be the object of the Society to encourage the comparative study of all nautical institutions and uses. The history of no institution can be fully appreciated from its development in one Service alone, whether the Royal Navy or the Mercantile Marine, nor can it be thoroughly understood without direct and frequent reference to what has been the contemporary usage among foreign nations. The germ, both of concrete things and of customs, is almost invariably to be sought in a remote period; and it has been well said 'that a great institution never perished without leaving a legacy to those that come after it, and that the present is inextricably entangled with the past'. It is because he was the first of nautical students to recognise fully the need of this scientific method of comparative study, and to apply

it in his invaluable writings on maritime archaeology, that the Society owes a tribute of respect to the memory of M. Auguste Jal.

Many probably will remember the familiar description of a leading article in a famous newspaper as having 'reached no definite conclusion from every conceivable point of view'. The Society should have great sympathy with the journalist who penned that article. Its own duty is primarily to approach its subjects 'from every conceivable point of view', a definite conclusion should be a secondary consideration, a thing very desirable in itself, but by no means to be plucked in the green ear.

Among Queries which are constantly being circulated privately there are many which, though of great interest, or even of importance, to individuals, are not of a nature to interest the student of nautical history and development. Such questions refer generally to some point in the career of a member of the enquirer's family. We recognize that enquiries of this nature deserve respect; but because neither they nor the answers to them would be likely to interest the Society at large, we have thought best to formulate a distinct policy for dealing with them.

If Members in sending in Queries of this nature say that they wish them to be inserted in *The Mariner's Mirror*, they will be inserted; but it may be doubted whether they will interest other Members enough to prompt them to seek out the answers to them. To ensure finding answers it will be necessary to employ a Record agent, who would charge a small fee. This fee would cover the cost of any ordinary enquiry; but, in the case of a question needing an unusual amount of research, the agent would for the fixed fee give a preliminary report, stating at the same time what would be the cost of pursuing the enquiry further. It will be seen that the appointment of such an agent would be likely to be advantageous to Members, the majority of whom, it is reasonable to suppose, either do not know where to find an agent, or would gladly be saved trouble of negotiating with one.¹

The policy of the Society as regards unpublished documents of naval interest will be to use them only for purposes of reference and illustration. Such documents will not be reproduced textually by the Society, as the Navy Records Society already exists for this purpose. The Editor will, however, be glad at any time to call the attention of the Navy Records Society to documents, the publication of which Members may think desirable. Documents of non-naval interest may be printed in *The Mariner's Mirror* provided that no regular provision for their publication exists elsewhere.²

The wide field of enquiry which presents itself to the Society is indicated

¹ This scheme never came to anything.

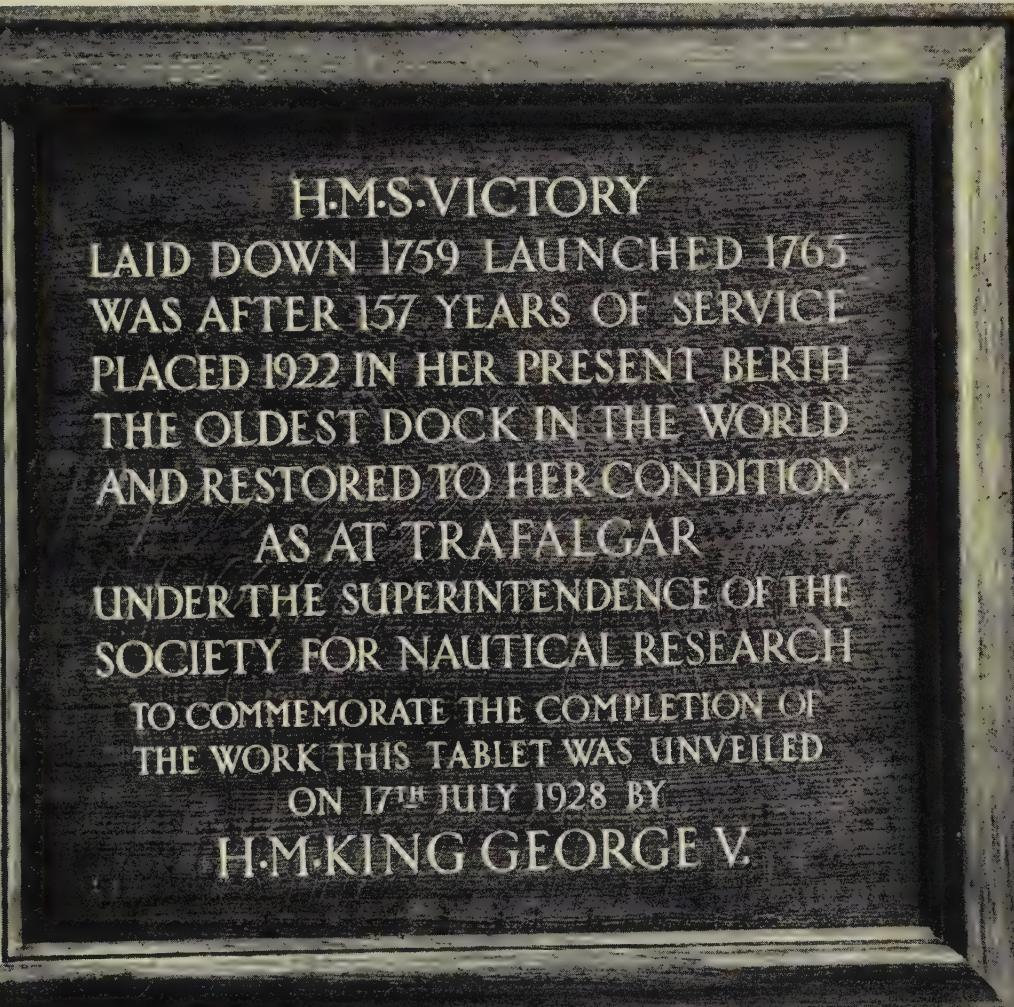
² This too has remained, largely, inoperative, mainly for financial reasons, and because priority must naturally be given to 'nautical' material, never in short supply.

by the long list of subjects printed under the title of this Journal. All of these branches of study are in great measure interrelated, and it is believed that no man can be interested in a few of them without being almost equally interested in all. It is for this reason perhaps the more curious that no Society such as ours has ever previously existed. Innumerable associations for the study of antiquities have existed and do exist; but though some of them have occasionally found space for a discussion of some special matter of nautical interest, they have without exception devoted by far the greater part of their attention to the antiquities of the land.

The project to compile eventually a Marine Encyclopaedia or Dictionary is mentioned in the Rules as being among the objects of the Society. An early start will be made on this formidable task, the first step to be taken being the compilation of a bibliography of the marine glossaries, dictionaries, cyclopaedias and similar works which already exist, whether in printed editions or in MS. Up to the present students have been much hampered by the almost total lack of bibliographies of nautical books, and more especially of MSS.; it is hoped that the Society may be able to do something towards removing this disadvantage.

The design chosen for the cover of this Journal is a reproduction of the title page of the first English edition (1588) of Waghenaer's *Speculum Nauticum*. It is doubly suitable, both because the title chosen by Ashley for this translation was *The Mariner's Mirrour* and because in the drawing are shown seamen, a great ship and instruments of navigation as they existed in England in the year of the Armada. The intention of the Society is to publish as many illustrations as its funds will permit. Members are therefore requested to suggest subjects for illustration, either by giving references to public libraries or collections, or by sending drawings or photographs to be considered for reproduction.

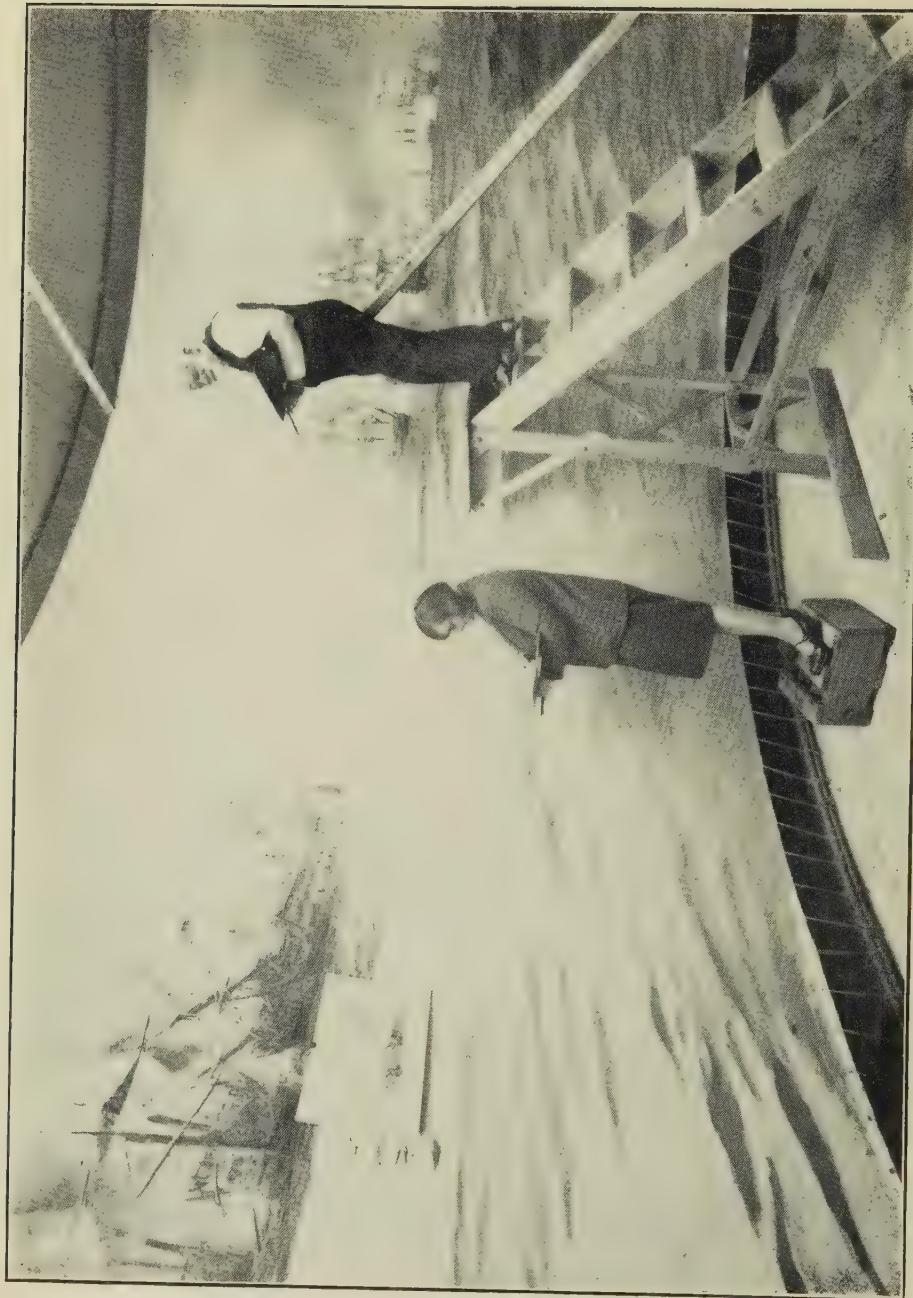
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SOME ACHIEVEMENTS OF
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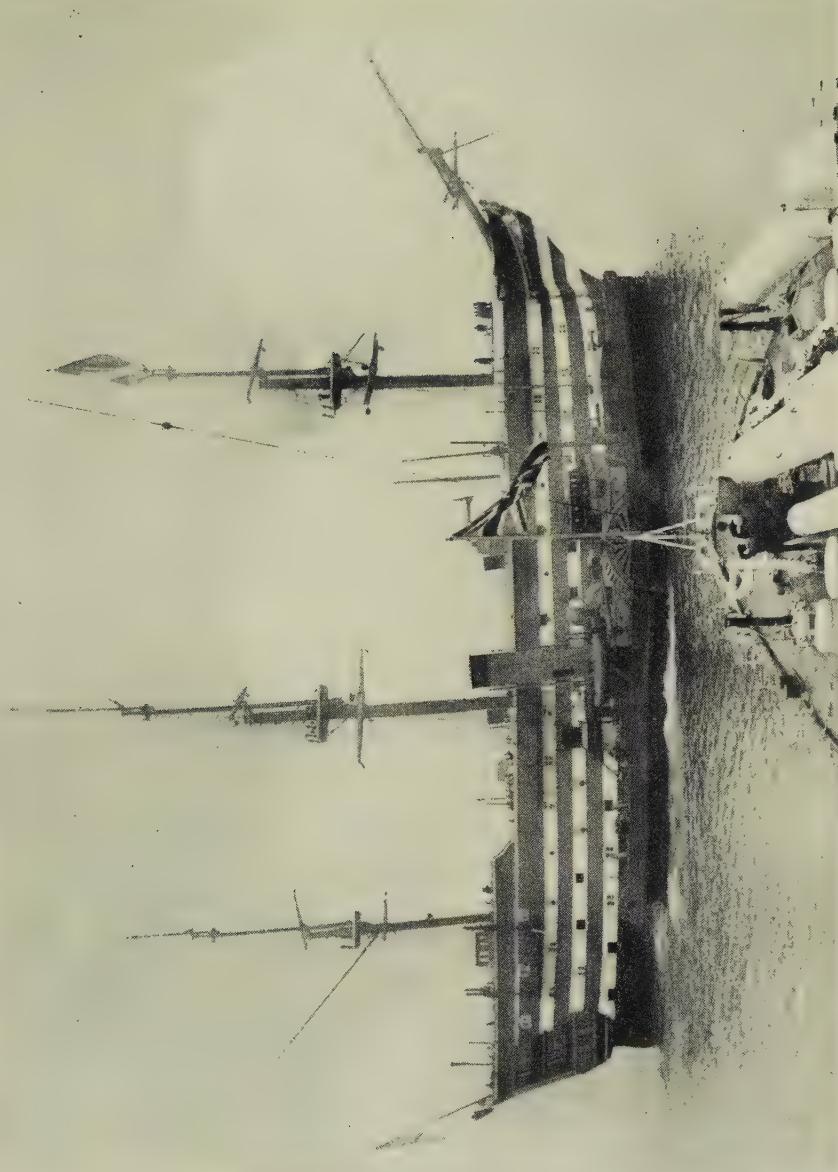
H.M.S. VICTORY
LAID DOWN 1759 LAUNCHED 1765
WAS AFTER 157 YEARS OF SERVICE
PLACED 1922 IN HER PRESENT BERTH
THE OLDEST DOCK IN THE WORLD
AND RESTORED TO HER CONDITION
AS AT TRAFALGAR
UNDER THE SUPERINTENDENCE OF THE
SOCIETY FOR NAUTICAL RESEARCH
TO COMMEMORATE THE COMPLETION OF
THE WORK THIS TABLET WAS UNVEILED
ON 17th JULY 1928 BY
H.M. KING GEORGE V.

COMMEMORATIVE TABLET

On board H.M.S. *Victory*



W. L. WYLLIE, R.A. (Vice-President, S.N.R.) working on the TRAFALGAR PANORAMA in the *Victory Museum*



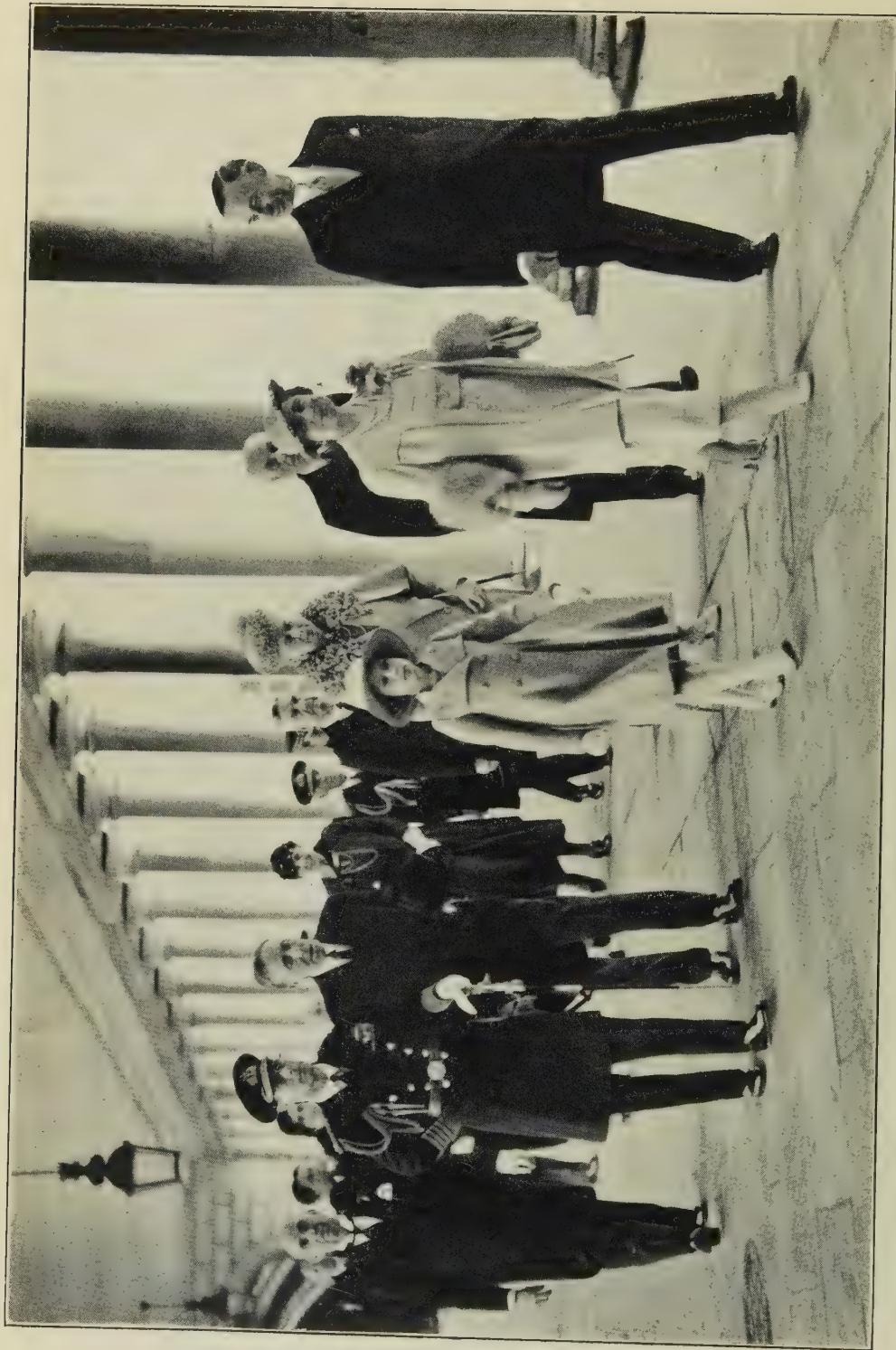
'SAVE THE *VICTORY*.' I.
The Ship, in her then condition, being towed to dry-dock, 12 January 1922



‘SAVE THE *Victory*.’ II.
The ship, restored, in dry-dock, 1928

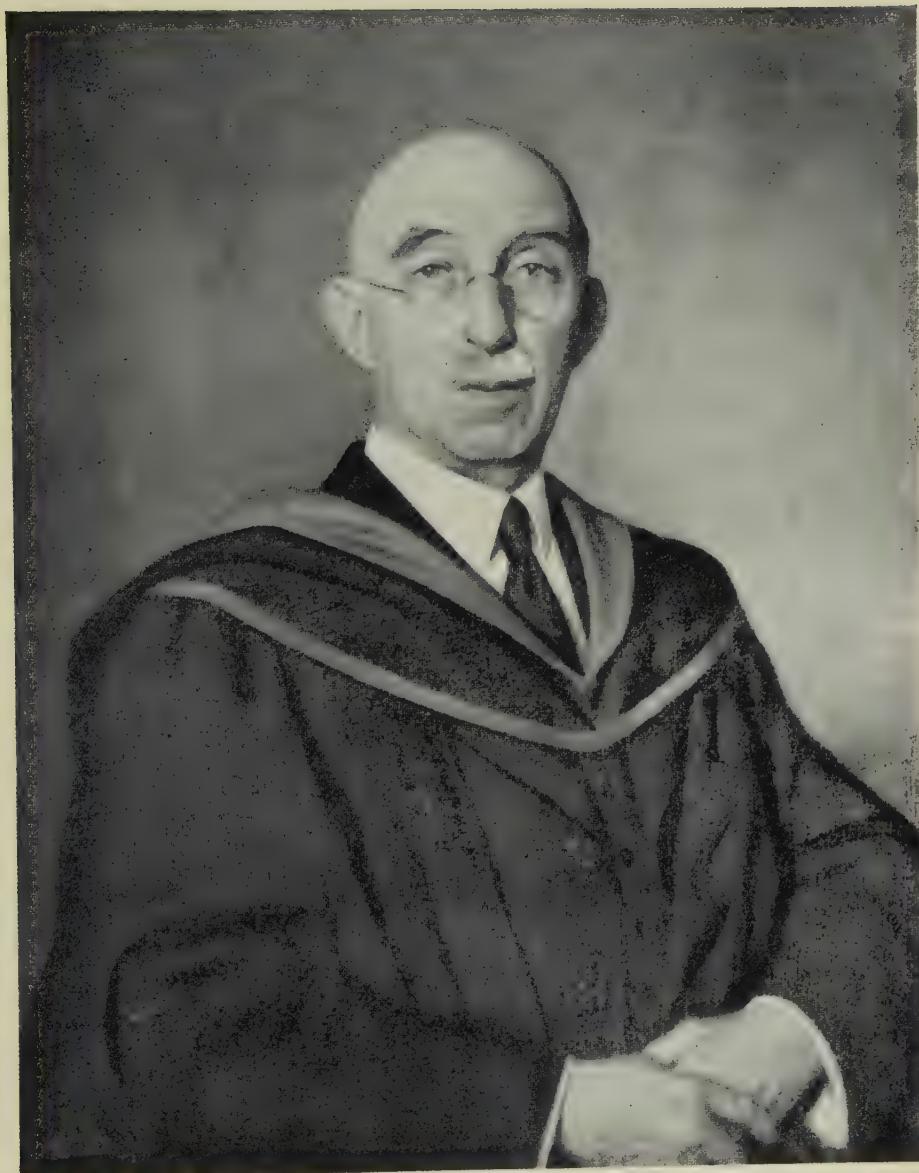


H.M. KING GEORGE V WITH PROMINENT MEMBERS OF THE SOCIETY ON THE QUARTER-DECK OF H.M.S. *VICTORY*, 17 July 1928. [Reading from left to right: Adm. Sir Richard Phillimore, Sir James Caird, Sir Geoffrey Callender, Adm. Sir George Hope, H.M. King George V, Maj. E. W. H. Fyers, Cdr. C. N. Robinson, L. G. Carr Laughton, Sir Alan Moore, W. L. Wyllie, Lionel Foster, Wing-Cdr. Harold Wyllie, O.B.E.]



THREE GENERATIONS OF THE ROYAL FAMILY AT GREENWICH, 27 APRIL 1937

In attendance are: (extreme right) Earl Stanhope, Chairman of Trustees. N.M.M. : (on H.M. Major) left) Sir George Hone, President S.N.P.



PROFESSOR SIR GEOFFREY CALLENDER

Hon. Secretary and Treasurer, S.N.R. and First Director of the National Maritime Museum



Bust of
SIR JAMES CAIRD, BART.
In the National Maritime Museum

THE LOSS OF THE *VICTORIA*

By Commander Hilary Mead, R.N.

ONE would have thought that this disastrous collision had been so thoroughly examined and discussed since 1893 that there was no room for any more comment or further argument; yet it has been revived cleverly enough to form the subject in 1959 of a book of 172 pages, which has turned out to be almost a best seller besides being partly serialized in one of the more popular Sunday newspapers. Apart from the events of the collision and the subsequent court-martial, which were sensationaly and dramatically written up, the book's main theme was the contrast in personalities of the two flag-officers concerned, Vice-Admiral Sir George Tryon, Commander-in-Chief, and Rear-Admiral A. H. Markham, Second-in-Command, of the Mediterranean Fleet. The author went out of his way to whitewash Tryon, and to blacken the character of Markham, saying that Markham was an amateur and grew more and more taciturn and embittered on account of his broken career, and his having become 'forgotten'. If he were forgotten it is odd that he was appointed C.-in-C., The Nore, at a later date when command of one of the Home Ports was considered one of the 'plums' reserved for a distinguished admiral towards the end of his service.

Naval officers of the rather older school will be annoyed and horrified at the technical bloomers and inaccuracies sprinkled freely throughout the book, in which epaulettes are supposed to have been worn by officers in white uniform, and by midshipmen; that the ship's company were wearing jerseys during midsummer in Malta; that midshipmen got their hammocks down in the afternoon, and that at a naval court-martial there was an official known as the Clerk of the Court. These and other absurdities may be overlooked by the tolerant, but what ought not to be passed without protest is the author's complete ignorance and misrepresentation about signals in the Royal Navy at the time. He wrote that the signalling system was so bewilderingly ingenious that no one completely understood it, and that to acquire a working knowledge took years of training. This was quite untrue, and the signal book underwent no very material changes between 1893 and the 1930's, having pretty well stood up to the tests of the 1914-18 War, for example. The author had found in the *United Service Journal* two lectures given by Lieutenant (afterwards Vice-Admiral) P. H. Colomb in 1863, 30 years before the *Victoria* was sunk, it should be noticed. He very

unfairly proceeded to take Colomb's remarks right out of their context and applied them to the conditions of 1893. The passage quoted was as follows: 'Our naval night signals *now* are more inefficient than they were in the middle of last century. They are, indeed, so bad that a flag-officer recently in command assured me that he dared not make more than six out of the 103 signals in the night signal book.' This incidentally was part of Colomb's plea for the adoption of flashing signals. In the intervening 30 years, in fact, flashing signals with electric lamps and using the Morse code had been well established, and become completely efficient and trustworthy by 1893.

The Equal Speed, Forming and Disposing, and Stationing signals, and the three alter course pendants required no reference to the signal book because their meanings were self-evident and could be recognized at sight by any signal rating, and by all executive officers from midshipman to admiral. They were among the first things to be taught to naval cadets in the training-ship, who could fully interpret them after a couple of terms' instruction. Aside from these routine and familiar signals of arrangement and formation, one section of the *General Signal Book* was devoted to 'Miscellaneous Manœuvres', from 'GO' to 'HT'; there was one ('HF') for turning a squadron sixteen points by the two columns altering course outwards, which would incidentally increase the distance apart of columns by twice the tactical diameter in force, in this particular fleet by eight cables. The 'Miscellaneous Manœuvres' did *not* include a signal for the columns to turn inwards, otherwise Tryon could have made use of it, and it is probable that the instructions for carrying out such a movement would have had a note emphasizing the minimum distance that the columns must be apart initially.

The following were the events of 22 June 1893. The fleet weighed anchor at 9.45 a.m. from Beirut and proceeded northwards along the coast of Lebanon towards Tripoli. They had to round a range of small islands, passing $2\frac{1}{2}$ miles to the northward of Rankine Island with its lighthouse during the afternoon. The coast then trended more towards the eastward and at 2.45 p.m. course was altered to E. by N. The fleet had been ordered by signal to form divisions in line ahead disposed abeam to port, the columns to be six cables apart ('EC 6'). It was arranged that they would turn sixteen points at about 3 p.m.; meanwhile time was purposely wasted so that the ships' companies could enjoy their Thursday afternoon make-and-mend before being called to anchoring stations.

The squadron was comprised of a mixed collection of men-of-war including battleships, 'turret-ships', and first- and second-class cruisers. Other units of the Mediterranean Fleet were the third-class cruisers *Fearless* and *Barham*, and the torpedo-gunboat *Sandfly*, which did not lie in the line,

and it is not stated where they were stationed at the time of the collision. Also, the torpedo-ram *Polyphemus*, not on the scene of the accident. The starboard column consisted of the *Victoria*, *Nile*, *Dreadnought*, *Inflexible*, *Collingwood* and *Phaeton*, while in the port column were the *Camperdown*, *Edinburgh*, *Sans Pareil*, *Edgar* and *Amphion*. The intention was to continue on the new course, W. by S., until the Tower of the Lions (76 ft. high) bore S. by E., when ships would alter course together eight points to port, the flagship coming in on the Tower of the Lions until Taras Island bore W. by S., the bearing selected for letting go anchor. At this stage the ships would be in two lines parallel to the coast, which ran roughly E. by N. and W. by S. The position of the flagship was one important factor in the order of the fleet when finally at rest; she must be in the inner line, and as close as possible to the principal landing place, in the westward part of the bay. The spot selected for her was in 7 fathoms, and a mile and a half from the town of Tripoli.

Tryon's plan was very neatly conceived, namely, for the fleet to alter course sixteen points and at the same time to get the columns (as well as ships in column) at two cables interval, which was to be the required arrangement when they let go anchor. The intended signal was for the two columns to turn inwards 180° , and to close to the necessary interval through the operation of their turning circles. Because there was no two-flag signal in the *General Signal Book* to bring this into effect, the admiral had to order each column separately to make the turn inwards through 180° . The required hoists consisted of the divisional distinguishing signals (2-flag over 1 and 2-pendants, respectively) superior to Compass-pendant with 16 above and below it, respectively. (First Division alter course in succession 16 points to port; Second Division alter course in succession 16 points to starboard.) The tactical diameter was 800 yards, so that if two units were to turn sixteen points towards each other, they must start by being a good deal further apart than 1600 yards. In order to finish up at the intended interval of two cables, the initial distance then should have been $1600 + 400$ yards, namely, ten cables.

As the columns were too close together to begin with the ships in them would necessarily collide, and theoretically each pair would meet in succession right along the line, involving five separate collisions. Of course, when the *Camperdown* was seen to have rammed the *Victoria*, the rest of the fleet took steps to keep out of the way. Had either of the divisional signals been hauled down separately, one division could have completed the turn in safety; then when the front was clear the other division could have altered course, increased speed and come up beside the other at two cables distance. As the Second Division was the shorter (five ships instead of six), it could

have turned first and got clear sooner. It is easy enough to be wise after the event, but the opinions of some witnesses which came out under examination at the court-martial, that Tryon *might* have intended to lead the First Division round outside the Second, really cannot be sustained, because the whole plan of the manœuvre was to get the fleet into anchoring formation; otherwise the admiral's column would have been the more remote from the shore.

If Markham had had the necessary amount of initiative, and not been so much under the domination of the C.-in-C., the best thing he could have done was to have persisted in his refusal to repeat the signal close up; meanwhile to order his column by Blue-pendant signal to turn together a few points to port, two, three or four, until the distance from the First Division was the proper ten cables (a matter of only a few minutes, and increasing speed if the larger turn were made); turn back again by Blue-pendant to the original course, and then to hoist the signal close up, and be ready (and safe) to execute the C.-in-C.'s manœuvre.

The *Camperdown* as guide of the port column, irrespective of her being a flagship, was responsible for seeing the ships of the starboard column answered a general signal, since their answering pendants could not be seen by the *Victoria*. The *Camperdown* would hoist her repetition close up as soon as the starboard column had answered; she could, however, still decline to do so if the signal was not understood, and that is what happened. The C.-in-C. in effect called attention to this delay, or supposed slackness, by showing the *Camperdown*'s pendants at the dip, a recognized form of reprimand, and in the case of the rear-admiral's flag ship, certainly a severe and humiliating step to take. This public rebuke was reinforced by a semaphore message, 'What are you waiting for?'. In a state of apprehension, therefore, the *Camperdown* went close up with her flags.

The crux of the mystery of the disaster was why did the C.-in-C. choose six cables as the distance for columns to be apart. Manœuvring distance, which did not have to be mentioned and was automatically taken up without being specified (by signal ('EC')), was 'twice as many cables as there are ships in the longest column', in this case twelve cables. In fact the *Camperdown*'s log earlier in the day had recorded that the *Victoria* was at twelve cables. As already said, in order to perform the intended twofold manœuvre the columns should have been at ten cables. How then did the mysterious figure of *six* arise? It was nothing but an aberration, and it can only be supposed that the admiral was confusing tactical radius with tactical diameter. Some witnesses at the court-martial were of the opinion that this was the source of the blunder. Anyway he obstinately refused to listen to his staff when they pointed out the mistake.

The author of the book makes a good deal of play about what he calls 'The T.A. System of Manœuvres', which had nothing whatever to do with the collision, although it was a favourite scheme of Admiral Tryon's. In November 1891 there had been published an official pamphlet entitled 'A System of Fleet Manœuvres with and without Signals'; it was a report from Sir George Tryon who was the chief exponent and sponsor of the 'System'. There was nothing new in the idea, which was that ships should follow the motions of the admiral and conform to his movements. This was already legislated for in the 'Instructions for the Conduct of a Fleet', part of the *General Signal Book*, whose Article XIII laid down that 'When the Admiral makes any movement without a Signal, the Ships of the Fleet are to regulate themselves thereby, in order to keep their appointed stations; unless the Admiral makes the Signal that his motions are no longer to be attended to'. The main points of the 'System' were that, unless otherwise ordered, ships should follow in the wake of their guides; guides would follow the movements of the guide of the fleet, and that the admiral would always be guide. This was simply repeating, perhaps emphasizing, what was already known to everybody. The 'System' contained a list of typical movements, each with a diagram, and all this part of the pamphlet was signed by Tryon's flag-lieutenant, Lord Gillford. (Incidentally, I hold a letter from the late Admiral Sir Sydney Fremantle who was an important participant in the events of that memorable time, stating that as a 'signalman', Gillford was 'N.D.G.' (no damned good!).) The diagrams show always a fleet of eight ships in two divisions disposed abeam to starboard, an almost typical arrangement of those days when a fleet comprised eight homogeneous battleships of the same, or nearly the same class. Some of the diagrams seem to be impracticable to a degree; in one the admiral alters course eleven points to port (without signal of course), and the second division has likewise to alter course, passing dangerously close to the rear of the first division, and end up slightly on its port quarter, with the leading ship overlapping the rear ship of the other column. If this were intended for a deployment it was unfortunate, according to the diagram, that the rear ship of the admiral's column was masked and shut in. The author keeps repeating that Tryon was a master of this sort of manœuvre, that he frequently exercised it, and expected the commanders of divisions and sub-divisions to foresee his intentions. When the admiral started to alter course in this fashion, however closely or 'attentively' his motions were watched, there was no knowing whether he intended to turn so much as eleven or twelve points. Since this 'System', as the author admits, had nothing whatever to do with the events of 22 June 1893, the suggestion that the signal 'TA' was expunged from the signal book as a result of the collision is just

nonsensical. It was neither expunged nor brought into suspicion, but was often used for its legitimate purpose, to one's own knowledge.

The scheme of manœuvring in action without signals had its origin in various conjectures. Quick-firing guns in the tops of military masts, as well as machine-guns had recently come into fashion, and it was thought that in battle all exposed members of the crew would be quickly mown down, and that the signalmen with their halyards would soon be shot to pieces. It was also thought that the signal staffs would encumber the officers on the bridge and get in their way. Furthermore, there was a complaint that signals took too long to be repeated or answered. We do not know to-day how much truth there was in these objections. The idea of exposed ships' companies being shot down early in action had already occurred to the authorities, and 4 years earlier, in 1889, most capital ships had been fitted with mast semaphores worked under cover for the very purpose of signalling in action and dispensing with flags.¹ (It came out in evidence at the court-martial that the *Camperdown* was so fitted.) As for the signal staffs embarrassing the navigating officers, these ratings were generally located on a 'flag deck' apart from the bridge. As to the length of time taken to answer flag signals, at the turn of the century answering and repeating were performed with lightning rapidity, but in any case there was nothing to prevent an admiral commencing a movement without acknowledgement, and accepting the slight delay in the flags being mast-headed. In spite of the dependence placed on the opinions of Admiral Tryon, there were many people at the time who thought it simply suicidal to manœuvre without any indication whatever.

During the court martial, the flag-lieutenant, Lord Gillford, was closely examined about the implications of the signal 'TA'. It was stated that after 'TA' was hoisted, ships were constantly under its influence. When manœuvres were ended for the day and the Finishing pendant (No. 3) was flown, 'TA' had no further significance, and Gillford had to admit that after several days in harbour, it could hardly be considered to be in force, and it had certainly neither been hoisted nor was in force on the fatal day.

The purport of the debatable two-flag signal 'TA' had its roots in Lord Howe's signal book of 1782, and for 100 years it was intended for night use as can be seen from the following:

1782	One light where most easily seen, and one false fire: to be observant of the admiral's motions.
1799	252
1816	231
1853	226
1879	184

(Numerary signal): Observe very attentively the Admiral's motions in the ensuing night, as he will probably alter his course, or tack, &c. without making signals.

¹ See *M.M.*, vol. xxii, p. 40.

1889 TA (alphabetical signals introduced): Observe very attentively the Admiral's motions as he will probably alter his course, make or shorten sail, increase or decrease speed, &c., either with or without Signals, as may be most convenient.

1894 Unchanged.

1897 TA: Observe very attentively the Admiral's motions as he will probably alter his course, increase or decrease speed, &c., either with or without Signals, as may be most convenient.

The signal in its later form had not been confined to employment at night. There was no indication in the signal book that blind manœuvres were necessarily going to follow. It was often in use before and after 1893 in such circumstances as threading an intricate and narrow channel, or weaving a course among a maze of fishing nets from drift-net vessels, and so on. In the hands of Admiral Tryon, however, the signal 'TA' was to be taken to indicate that blind manœuvres were to be carried out.

In the course of the various discussions and numerous arguments about the disaster, the expression 'to invert the column, or the line' kept cropping up, even Clowes's *Royal Navy* being among those which thought it meant that a column would alter course in succession sixteen points. To invert a column from the rear indeed occurred twice in the 'Miscellaneous Manœuvres', 'GQ' and 'GR', respectively, and the signal book described in fact what was meant, to invert the order of ships in line ahead by reversing their relative positions; Fleet nos. 1, 2, 3, 4, 5 and 6, for example, now forming in the order 6, 5, 4, 3, 2 and 1. Course was *not* changed. The only difference between 'GQ' and 'GR' was that the ship advancing from the rear of the column passed to starboard and port, respectively, of the ships they were overtaking. Nothing of the kind was intended on 22 June 1893.

Another curiosity was the notion that the *Victoria* disaster was attributable to the use of the 'Grid-Iron' manœuvre of sinister reputation, and that it had been afterwards expunged from the signal book owing to its danger. This again was a falsehood, as the signal and the manœuvre were not abolished but were used on occasions, within one's own experience. This was another 'Miscellaneous Manœuvre', performed by the signal 'GP', and it received the name 'Grid-Iron' because the tracks of the ships carrying it out roughly resembled such a kitchen utensil; the positions of the columns were exchanged, by the ships turning together eight points inwards and passing between the intervals of the ships in the opposite column, and then all turning together to the original course. Nothing of the sort was contemplated on 22 June 1893.

EGYPTIAN SEA-GOING SHIPS,
ABOUT 2600 B.C.

By Carl V. Sølver

THE Egyptians built ships especially adapted for voyages beyond the sheltered waters of the Nile at a very early period. The oldest known representations of such vessels are to be found in a series of reliefs in the pyramid tombs of King Sahuré of the Vth Dynasty (c. 2600 B.C.) at Abu Seir in lower Egypt. These show a fleet of some thirty ships arriving from, or leaving for, a foreign country, presumably Lebanon. They are drawn in much detail and beautifully finished, and since each ship is about 1 m. long, they throw much light on ancient Egyptian shipbuilding. These ships have been described and discussed by their finders,¹ but as Professor Assmann expressed his doubts about his own hypothesis and invited others to give fresh views as to the construction of the hull, the rigging, etc., I have ventured to add my own opinion based on new finds and further study.

The kings of the IVth and Vth Dynasties seem to have shown considerable enterprise in shipping and oversea trade and there is evidence of voyages beyond the Nile not only to Syrian ports but even down the Red Sea to far-off Punt. Journeys to Punt were undertaken to obtain rare incense and similar exotic products, but those to Lebanon were mainly for large timber for building purposes and cedar oil for religious ceremonies. These trades were Royal prerogatives and had been going on for long before the age in question; in a hieroglyphic inscription from the time of King Snefru of the IVth Dynasty we read of a fleet of forty ships arriving safely in Egypt with a cargo of cedar wood.

Ships employed in this trade, as seen in the reliefs (Fig. 1), were certainly not like the frail boats still to be seen in museums, built from many small pieces of sycamore or other home-grown timber, but constructed in a far better and especially a far more rigid manner. Long planks of cedar wood were now available for the outer planking, and though the ships' hulls were evidently built on the traditional pattern, with long overhangs forward and aft and without frame-timbers, etc., they were certainly great improvements on the boats used on the Nile.

¹ Borchardt, *Das Grabdenkmal des Königs Sahu-re*; Assmann, *Die Schiffsbilder*, Leipzig, 1913.

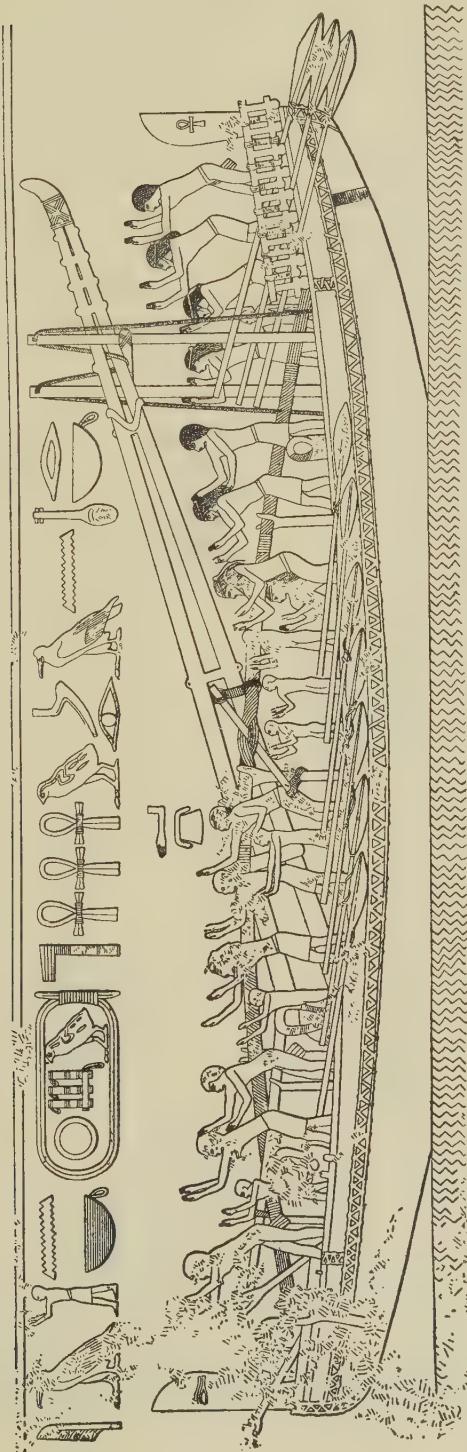


Fig. I. One of the ships of King Sahure (c. 2600 B.C.) arriving at Thebes. Relief from his tomb at Abu Seir.
Original in the Egyptian Museum, Berlin.

In 1954 the discovery of an exceptionally well-preserved vessel showed us that quite long pieces of cedar wood were actually used for shipbuilding. This boat was built early in the IVth Dynasty for King Cheops and had been placed in a ship's tomb cut in the living rock south of the Great Pyramid at Giza. Unfortunately, I was not allowed to enter the grave, but, so far as I could judge, the vessel was about 30 m. long and 2·5 m. wide. The skin was formed of cedar wood planks about 10 cm. by 35 cm. and of considerable length, put together in the Egyptian way with mortises and treenails. The paddles and steering-oars were exactly like those shown in the reliefs, but I saw no sign of a truss-rope, although ropes of various sizes were present in plenty.

To return to the ships of King Sahuré. Running from stem to stern we see a sort of decoration evidently made of rope, perhaps to hide the ends of the deck-beams or perhaps to act as a lashing to fix the gunwale plank to the hull. At the after end there is a stout platform with a low rail for the three steersmen, whose long, pointed steering-oars are placed between the uprights, so that they can work in any direction without fear of breaking. Seven light oars are carried on each side in rope strops on the gunwale and further secured by lanyards. The art of rowing as opposed to paddling had been invented in this Dynasty and it was a characteristic of Egyptian rowing that the oars were held nearly vertical with the blades close to the ship's side.

How the planks were secured at stem and stern cannot be seen, but it was presumably by strong treenails and rope lashings. Both ends of the ship are finished off by ornamental boards, that forward suitably carved in the shape of an eye—the sacred eye of Horus—and the aftermost with the hieroglyph 'ank', the sign for life.

These ships, like all other Egyptian vessels, were probably without decks as we understand the word, but had loose wooden coverings between the deck-beams, removable when necessary. The hieroglyph for these 'shutters' does not mean 'deck', but naturally enough 'floor'. There is no sign of a cabin anywhere, but there may perhaps have been some sort of awning to spread over the truss-rope as a tent.

On deck there appear two objects, one forward and one aft, which look to me very like killicks of some kind; they are heavy round lumps of stone with holes for a wooden rod and strops for securing a cable. It is true that no hieroglyph for 'anchor' is known, but it is almost certain that such ships as these, often having to wait for a fair wind, must have had anchors of some kind.

A very conspicuous feature of these ships is the truss-rope running fore-and-aft over three very stout struts as a means of preventing hogging. At

the ends where this truss-rope is made fast there are heavy woldings over wooden bars on the gunwales. The truss is formed of a double rope tightened in tourniquet fashion by means of a lever. As a further longitudinal strengthening a very heavy plank consisting of several pieces dove-tailed together ran from end to end over the deck-beams. This plank is not shown in the picture, but is seen in almost all models and is characteristic of Egyptian craft in general. It is obvious that a ship built in the Egyptian way would be very heavy and at the same time very liable to hog; the fore-and-aft plank and the truss-rope were certainly necessary.

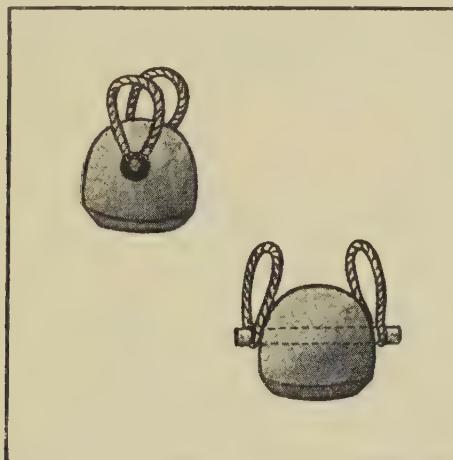


Fig. 2. Reconstruction of stone-anchor as seen on deck.

The sheer-mast (A-mast) is shown struck with its upper end resting in a sling suspended between two poles. It is made from two comparatively slender spars joined at various places by wooden sticks and lashed at the top, where there is a kind of overhang as a lead for the halliard. The two legs of the mast are supported by one of the deck-beams and lashed in such a way that the mast can be raised, its two heels resting in mast-steps on the bottom when it is in its upright position.

As far as I can make out, both lower ends of the mast have heavy stone weights lashed to them. These are made in much the same way as the anchors and serve two purposes, raising the mast and keeping it upright, as shown in my reconstruction (Fig. 3). Stepping and striking the mast is accomplished by means of a simple lever working on a forked strut on the foredeck, one end being attached to the weight and the other tied down to the nearest deck-beam. When this lanyard on the fore end of the lever is

slackened, the weight will drop and the mast will rise, its movement being controlled by backstays and forestays. Striking the mast is done in the reverse way.

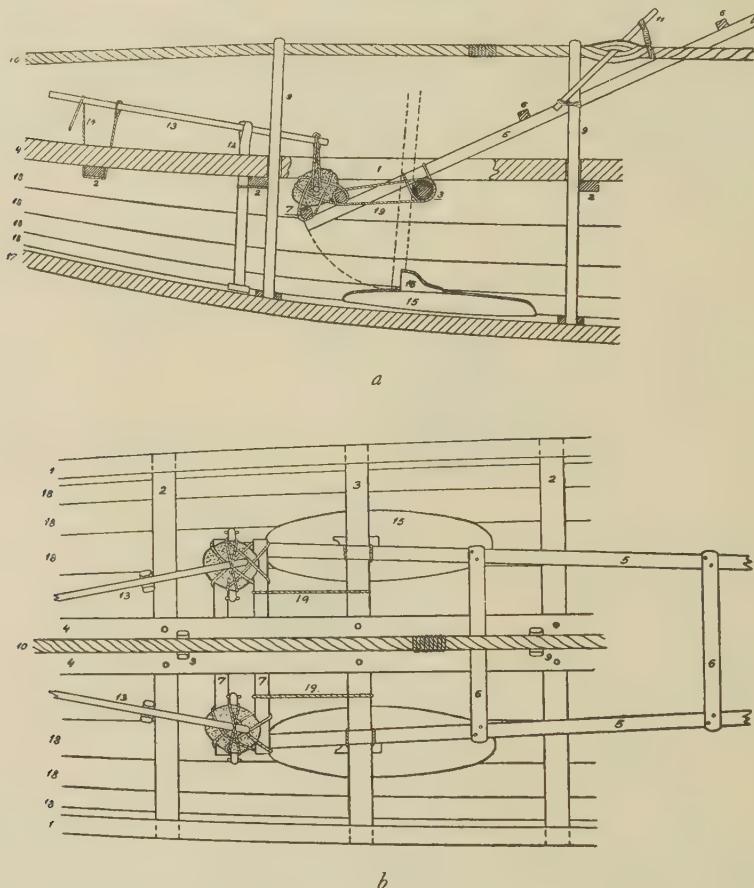


Fig. 3. Suggested arrangement for raising or lowering the mast. 1, gunwale plank; 2, rectangular deck-beam; 3, round deck-beam; 4, fore-and-aft deck-plank; 5, legs of sheer-mast; 6, cross-pieces; 7, supports for weights; 8, stone counter-weight on heel of mast; 9, forked strut for truss-rope; 10, truss-rope; 11, lever for tightening truss-rope; 12, forked strut for carrying lever; 13, lever for raising or lowering mast; 14, lanyard attached to deck-beam; 15, partners for mast-steps; 16, mast-steps; 17, side planking; 18, bottom planking; 19, counter-lines to take weight of mast.

This idea as to the raising and lowering of the mast differs from that of Professor Assmann. His reconstruction can be seen in his work *Die Schiffsbilder* and has been repeated without alteration by Boreaux in *Etudes de Nautique Egyptienne* (Cairo, 1925) and by others, most recently in the M.M.

for February 1960 (p. 5). This solution is, however, not in accordance with the details shown on the original relief.

Unfortunately, the pictures show no sails, but we know from contemporary sources that the sail was square, tall and bent to a yard with no parrel but with braces leading aft and sheets fastened to a boom carried athwartships on the gunwale.

The article by Dr Bowen in the *M.M.* for February 1960 on the subject of raising the sail in this vessel explains it in a manner which seems to me impractical. There might be a slight advantage in dipping the mast forward to lessen the friction where the halyard passed through a hole in the mast-head, but this would be far more than outweighed by the danger of lifting the unshrouded mast with sail set. There would be an enormous strain on the mast and the whole thing would probably collapse in anything of a breeze. I see no reason why the sail could not be hoisted with the mast upright. With the yard vertical and the canvas held together by a few turns of the lines shown attached to the leeches two or three men could easily hoist the sail to the masthead. These lines on the leeches were formerly taken for bowlines, but Dr Bowen is undoubtedly right in assuming that their function was to keep the sail inboard when lowering the yard.

The position of the mast so far forward together with the shape of the sail proves that these ships were meant to sail with a following wind only. Rowing such heavy vessels against any wind or sea was out of the question and I have often wondered how their long voyages were accomplished. However, this timber trade evidently took place in the summer months, when meteorological conditions are steady and long periods of calm are the rule in this corner of the Mediterranean. Outward bound they would certainly hug the coast, using the oars and taking advantage of the current northwards from the Nile and of any favourable gust of wind. Homewards they would probably take a course well off shore, where northerly winds, the so-called Etesians, usually prevail at this time of year and would give them a fair run southwards to one of the western mouths of the Nile.

We know from the Bible (Kings, v. 8-9) that the Phoenician King Hiram freighted timber to King Solomon in Palestine in rafts, and although this was many centuries after the reign of Sahuré, it may be that the Egyptians also towed their timber from the Syrian coast to the Nile with the help of the Etesian winds. The chief loading port in Lebanon was Byblos, often mentioned in hieroglyphic texts, the present Debjail or Djuneh, where there are still remains of the vast cedar wood forests of antiquity.

The voyage from the eastern branch of the Nile to their destination, some 200 or 300 miles, might have been accomplished by the Egyptians in a week or so in comparative safety, but the homeward stretch on the open sea would naturally have taken much longer, especially if they had rafts in tow. At any rate, it must have been an enterprise of considerable risk needing both experience and skill in captain and crew; we can fully realize that the happy return of a fleet of these ships must have been an event worthy of being recorded for ever on the walls of the King's tomb.

EXAMPLES OF MARINE DRAWINGS AND PAINTINGS EXECUTED BY MEMBERS OF THE SOCIETY FOR NAUTICAL RESEARCH

Although today the written word is probably the most important factor in the documentation of ships and boats, it was not always so; for primitive man depicted his boats hundreds of years before the age of writing.

True, the ancients wrote about ships and boats, but they generally treated them in a detached manner, as being something that had to be used and therefore mentioned, but which had no intrinsic interest. The medieval travellers, too, were meagre, perfunctory and often unreliable in their writings on that subject. Not so the artists. Without waiting for the advent of the printing press or the steel pen, they got down to work with great enthusiasm with what they found to hand; and, for the most part, they produced pretty accurate work, in graffiti, painting on pottery and stained glass, carvings on wood and stone, coins, seals, model boats and the rest, with the result that nautical research today owes far more to the early artist than it does to the early writer.

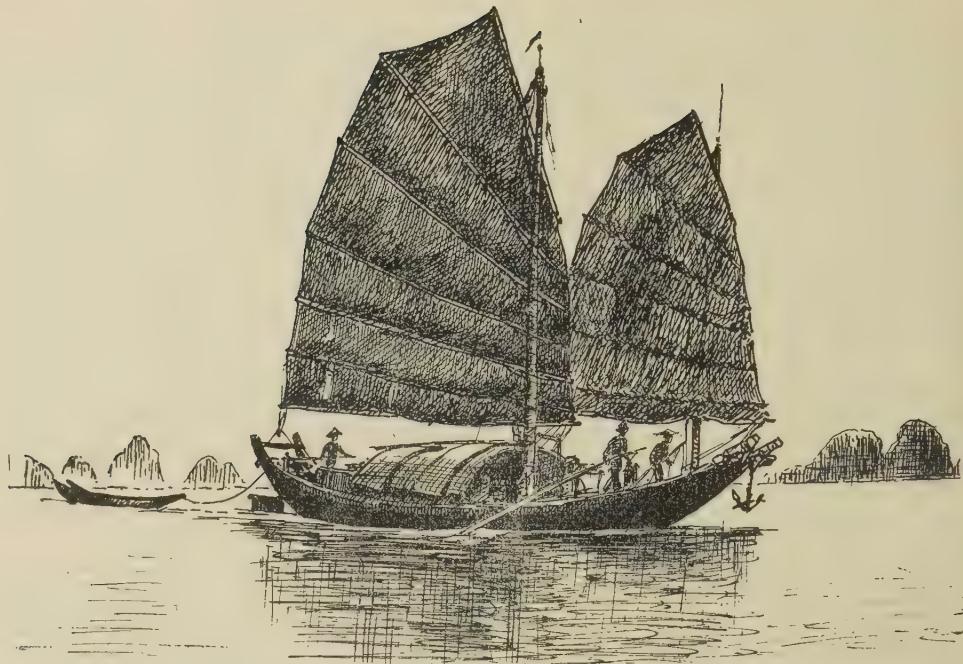
With the invention of printing, however, the writer overtook the artist; but, happily for us all, the day of the artist is not yet over; he is still required to produce pictures of the sea and ships, illustrate books and, of course, contribute to the *Mariner's Mirror*.

To celebrate its 50th Birthday the *Mariner's Mirror* wishes to pay homage to the marine artists of the past, to whom we owe so much, by asking those members of the Society for Nautical Research who are interested in the accurate drawing of ships and boats for examples of their work.

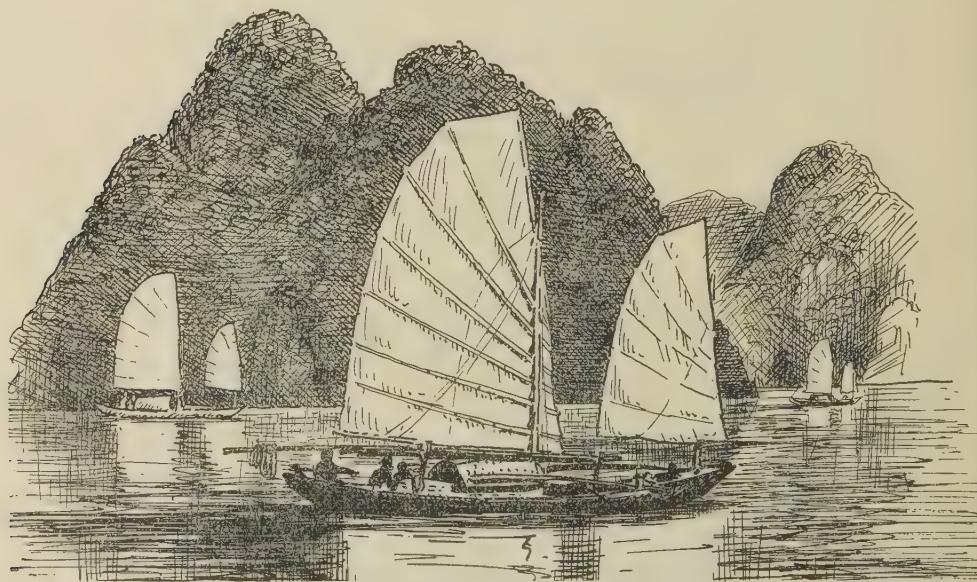
Members will be familiar with the work of a number of other contributors to the journal whose drawings have proved a delight over the years, examples of which it has not, for various reasons, been possible to include. (Editor)



The barque *Kilmallie* dropping the pilot. (Pen and ink drawing, $6\frac{1}{2}$ by $7\frac{1}{2}$ in.) E. Bowness.



A junk in Along Bay, Tonkin. (Pen and ink drawing, 15 by $8\frac{1}{2}$ in.) Etienne Sigaut.



Junks in Along Bay, Tonkin. (Pen and ink drawing, 15 by $8\frac{1}{2}$ in.) Etienne Sigaut.



Trial of Sailing Channel Fleet off Lisbon, 1847, rounding the lee mark
(Oil painting, 60 by 38 in.) Lt.-Col. Harold Wyllie, O.B.E.



The last voyage of the *Cutty Sark*. (Oil painting, 32 by 24 in.) Norman Wilkinson, C.B.E., P.R.I.
In the possession of H.R.H. The Duke of Edinburgh.



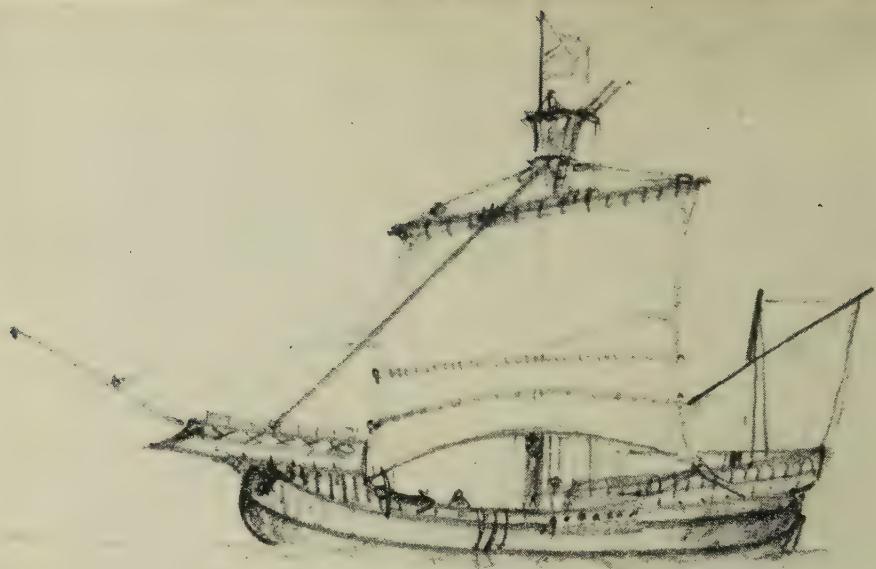
The last voyage of H.M.S. *Implacable*. (Oil painting, 32 by 24 in.) Norman Wilkinson,
C.B.E., P.R.I. In the possession of P. Trumper, Esquire.



Italian Battleship *Dandolo*. (Water colour, 4 by 3 in.) Baron Rubin de Cervin.



Toil, glitter and grime on a flowing tide. (Oil painting, 5½ by 3½ ft.) W. L. Wyllie, R.A.



A ship of the fifteenth century. (Charcoal drawing, $6\frac{1}{2}$ by 4 in.) Sir Alan Moore, Bt.



Fukien junk carrying a deck cargo of poles. (Pencil drawing, 15 by 9 in.) G. R. G. Worcester.

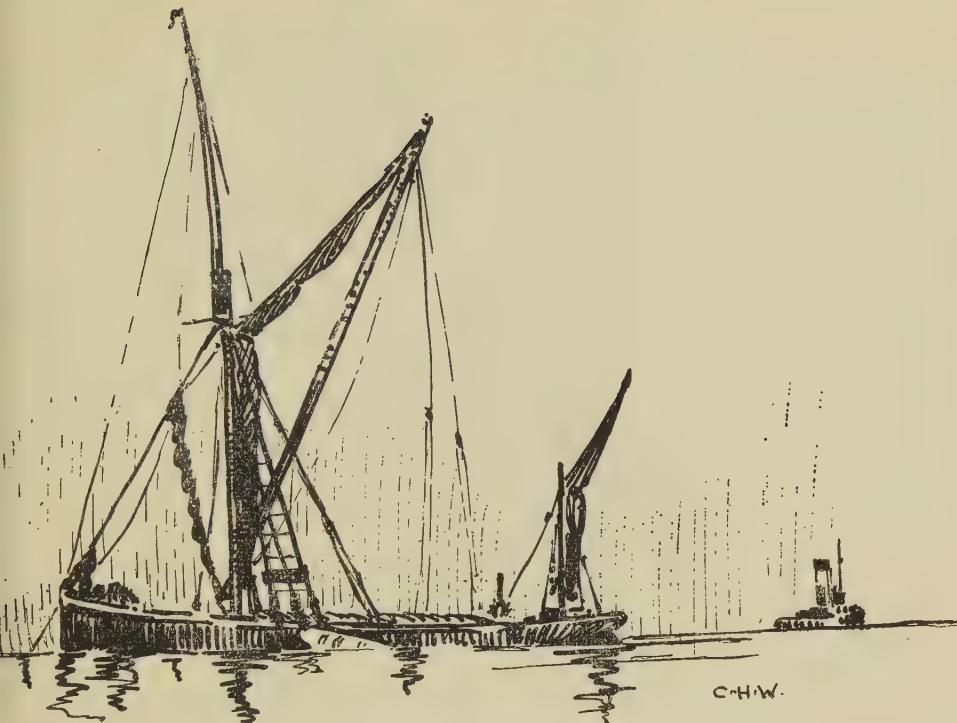


Trading smack *Mary* of Truro. (Pen and ink drawing, 9 by 13 in.). David MacGregor.

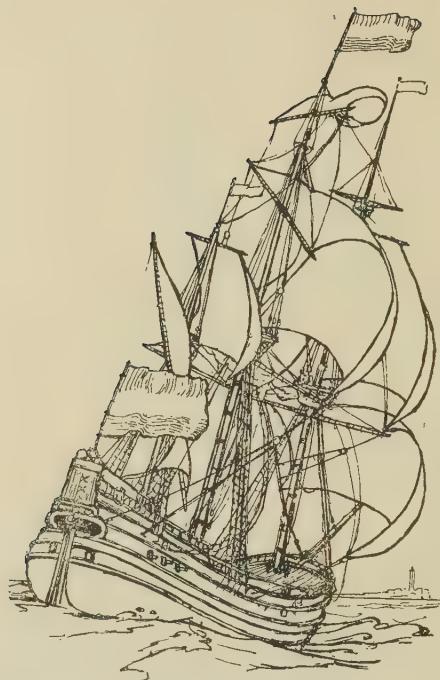


Ketch *Sunshine* at Bideford. (Pen and ink drawing, 11½ by 12 in.) V. C. Boyle.

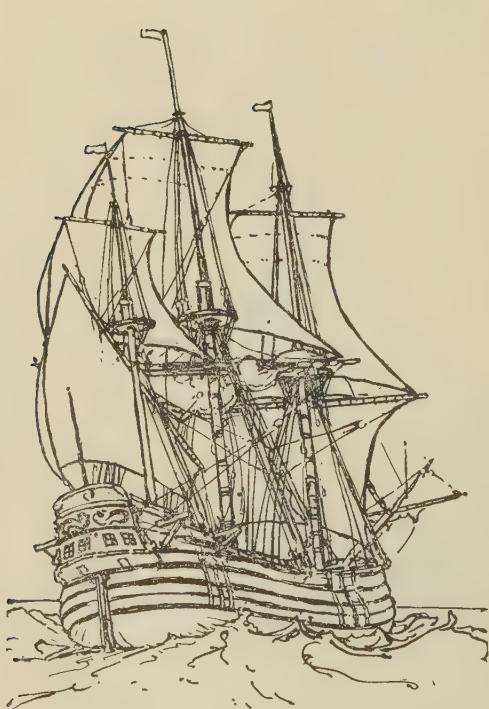




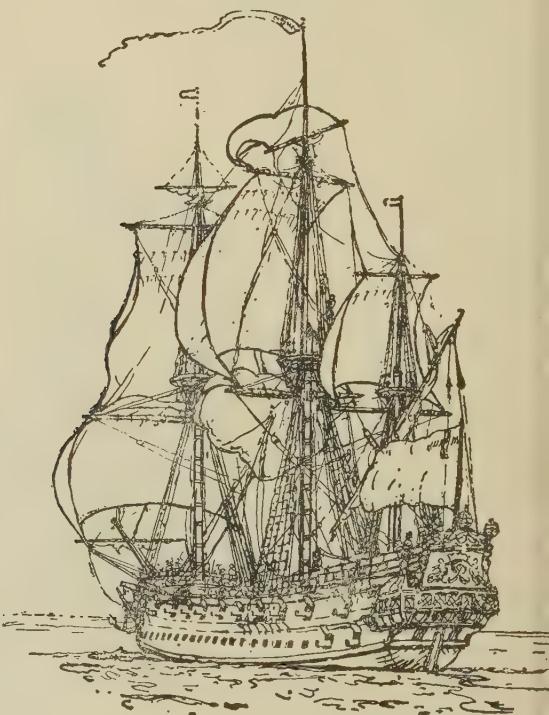
Thames barges. (Pen and ink drawings, 12 by 13 in.) Commander C. H. Williams, R.D., R.N.R.



Large flute (Dutch) Flyboat (English) Pink (small flyboat)

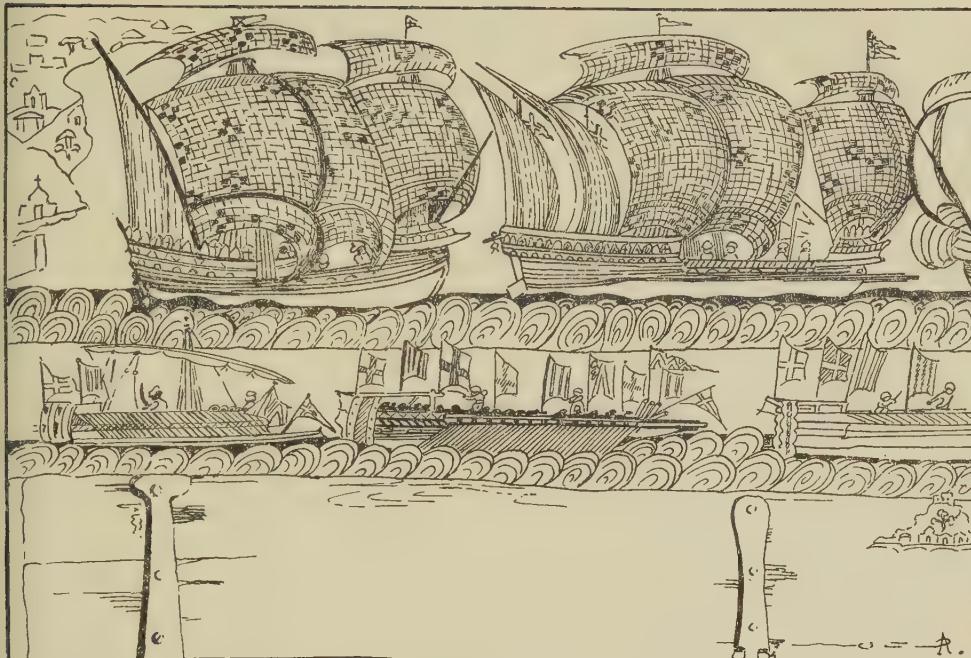


Cat (whaler) Dutch and English



Galley frigate

Types of seventeenth-century vessels. (Pen and ink drawing, 12 by 14 in.) Gregory Robinson.



Carrack, galleon and galley about 1540. Drawing of the inside lid of a chest at Berkeley Castle.
(Pen and ink drawing, 17 by 11 in.) Romola Anderson.



Study of a fifteenth-century ship. (Pen and ink drawing, 4 by 6½ in.) Dr Oscar Parkes, O.B.E.

SOLDIERS' AND SEAMEN'S WIVES AND CHILDREN IN H.M. SHIPS

By Commander W. B. Rowbotham, R.N.

ON the outbreak of war against Revolutionary France in 1793, seamen were not immediately available in sufficient numbers to man the expansion of the fleet, and the Corps of Marines was also much below war strength—to the number of about 2000 men. The Army was therefore called upon to make good this latter deficiency and several regular line regiments were detailed to serve afloat as marines, as a part of the complement, besides which other regiments were specially raised for a like service. This state of affairs lasted for about four years, by which time the Corps of Marines had been brought up to war strength, and these soldiers were at last released for their proper function.

Detachments, usually of about company strength, were accordingly embarked in a number of ships of the line, both in home waters and abroad, and also in smaller strength in a few frigates. These detachments did not necessarily remain in the same ship throughout during their tour of duty but were moved from ship to ship, or else disembarked for service on shore, as occasion required. Many of them were present in one or more of the major fleet actions of this period, as well as in cutting-out operations and other minor naval warlike activities. Generally speaking, marine and army detachments were not embarked in the same ship, though sometimes a ship had on board drafts from more than one regiment.

In those days the soldiers who were married 'on the strength' were accompanied by their families on active service abroad (e.g. in the Mediterranean), and this custom was maintained, at any rate in part, whilst their husbands were serving afloat. If a soldier was discharged to sick quarters on shore, his wife, if on board, was also discharged, 'to be with her husband'. In home waters (i.e. in the Channel Fleet), however, the wives and children remained on shore at the regimental headquarters or the equivalent.

The wives were victualled at two-thirds allowance of all species [of provisions] and children at half-allowance, being so shown in the Supernumerary Lists in the ships' muster books. The scale of victuals is shown in the Appendix. These Supernumerary Lists were seldom completely written up, and full details of who were the respective husbands are often lacking. It is not always possible, therefore, to state with certainty the names of the

relevant husbands, as the spelling of names sometimes varies in the lists in different ships when changes took place from one ship to another; they can, however, usually be identified. During an action these women were probably employed in assisting to attend on the wounded.

A brief explanation of the muster books will not be amiss. A fresh series of the officially printed muster tables was written up every two calendar months, and normally included all the previous entries in former books. Each series constituted what was known as the 'Compleat Book', which in modern parlance is the Ship's Ledger. These, when bound up at the Public Record Office (PRO), usually covered a period of about ten or twelve months, though for the smaller ships the period was sometimes longer. Columns were provided for a variety of information about every person borne on the books, both as part complement as well as supernumerary, but in a number of muster books this information was not always entirely entered up and left something to be desired. The calligraphy varied from copper plate to a scrawl that was occasionally not readily decipherable; also the spelling of officers' names was not always the same as that given in the printed lists of sea officers, the army lists or in those cases where officers' signatures were appended (i.e. captains, lieutenants, masters, pursers and boatswains).

Although something is known about the spartan conditions obtaining during a passage in a hired transport in the eighteenth century,¹ no details of how the women and children of other ranks were accommodated on board ships of war appear to have been preserved. Regimental histories seldom, if ever, refer to this particular aspect of internal economy. In some ships the number carried—often for many months at a time—was appreciable, and it is possible that they were berthed in a special mess, suitably screened off; but this is only conjecture. At the best, they cannot have been particularly comfortable in their necessarily cramped surroundings.

In passing, it may be mentioned that the contemporary Admiralty Regulations and Instructions (1790) are silent on the matter, so each ship was left to make the best arrangements possible in the circumstances. All that is laid down has reference to the presence on board of women whilst in harbour—another aspect altogether. 'That no women be ever permitted to be on board, but such as are really the wives of the men they come to, and the ship not to be too much pestered even by them. But this indulgence is only to be tolerated while the ship is in port, and not under sailing orders.' This regulation, however, was universally disregarded, and the conduct and morals of many of the women who found their way inboard was of the worst

¹ The Voyage of the 23rd Foot to New York in 1773. *J. Soc. Army Hist. Res.*, Vol. XXXVIII, No. 154, June 1960.

possible description. In spite of this, the Admiralty do not seem to have made any attempt to check the undesirable features of this infraction of the regulations.¹

Although the regulations were clear that the wives of seamen and marines were not permitted to accompany their husbands to sea, there is documentary evidence to prove that some, in fact, did so, with presumably the concurrence of the captain of the ship. But unlike the wives of soldiers serving as marines, these naval wives had no official status and therefore were not shown in the muster book, nor were they victualled; and if a child was born on board its existence was likewise not officially recognized.

Table I

Regiment	Ship	Women	Children	Total
11th Foot	<i>Bedford</i>	1	—	12 + 10
	<i>Captain</i>	3	—	
	<i>Diadem</i>	1	2 F.	
	<i>Fortitude</i>	5	2 M., 3 F.	
	<i>Illustrious</i>	2	3 F.	
25th Foot	<i>Egmont</i>	5	3 F.	5 + 3
30th Foot	<i>Egmont</i>	1	—	9 + 1
	<i>Princess Royal</i>	2	1 F. ¹	
	<i>Terrible</i>	6	—	
69th Foot	<i>Agamemnon</i>	3	—	22 + 2
	<i>Britannia</i>	11	2 F.	
	<i>Courageux</i>	8	—	
				Total: 48 + 16
				Grand total: 64

¹ Daughter at two-thirds allowance.

There is, however, the unexplained case of Elizabeth Brydon, who is described in the muster book of the *Minerve*, 38 (Captain George Cockburn, broad pendant of Commodore Horatio Nelson), as the wife of a marine² and is victualled at the usual two-thirds allowance. How she came to be there does not transpire, but she 'appeared' at the same time that Sir Gilbert Elliot (the late Viceroy of Corsica) and his party were embarked at Elba when that place was evacuated at the end of January 1797. What is curious is that she remained victualled in the *Minerve* for thirteen months before being finally discharged.

From the foregoing it will not be surprising to find that a number of the

¹ *Statement of certain immoral practices prevailing in His Majesty's Navy* (1822). Admiralty Library: Naval Pamphlets, 15, No. 8.

² The *Minerve* carried a detachment of the 11th Foot, serving as marines, but she had no regular Marines in her complement at that time.

wives and children of both sexes of soldiers who were serving afloat as marines were present in the earlier fleet actions fought by ships of the Mediterranean Fleet. But by the time of the battle of the Nile (1 August 1798), all the soldiers who had been embarked in lieu of marines had been discharged to rejoin their regiments on shore, and thereafter all ships carried their full complement of marines. If, here, only 'medal' actions are considered, it will be seen that in Hotham's action off Genoa (14 March 1795) there was a total of 48 women and 16 children present in the ships shown in Table 1.

In the battle of Cape St Vincent (14 February 1797) there was a total of 23 women and 20 children present in the ships shown in Table 2.

Table 2

Regiment	Ship	Women	Children	Total
2/1st Foot	<i>Britannia</i>	1	1 F.	1 + 1
11th Foot	<i>Diadem</i>	1	2 F.	1 + 2
50th Foot	<i>Diadem</i>	3	1 M., 1 F.	3 + 2
51st Foot	<i>Blenheim</i>	2	1 M., 2 F.	2 + 3
69th Foot	<i>Britannia</i>	11	3 M., 6 F. ¹	16 + 12
	<i>Captain</i>	5 ²	2 M., 1 F. ³	
				Total 23 + 20
				Grand total 43

1 Two boys and two girls were born on board, though one girl died when only $3\frac{1}{2}$ months old.

2 One is possibly 11th Foot.

3 One is shown as 69th Foot, but is possibly 11th Foot.

In the two fleet actions under consideration, there were therefore present:

Date	Women	Children	Total
14 March 1795	48	2 M., 14 F.	64
14 February 1797	23	7 M., 13 F.	43
Total	71	9 M., 27 F.	107

A few of these women and children were present in both actions, though not necessarily in the same ship on each occasion, viz.

11th Foot 1 + 2 in *Illustrious* and *Diadem*
 69th Foot 1 + 0 in *Agamemnon* and *Captain*
 69th Foot 5 + 2 in *Britannia* (both actions).

When the Naval General Service Medal, 1793-1840, was authorized in 1847, Her Majesty had originally directed that all who were present in the actions so commemorated should have a medal, without any reservation as to sex, and claims were accordingly put in by two women for the battle of the Nile and one for Trafalgar. There were, however, practical difficulties

in implementing this decision. The final conclusion by the Medal Committee was that 'Upon further consideration this¹ cannot be allowed. There were many women in the fleet equally useful, and it will leave the Army exposed to *innumerable* applications of the same nature.'

The medal was therefore granted only to male survivors who were still living in 1847. Nine boys (soldiers' sons) were present in these two earlier actions, but it seems that none was alive in 1847, for no claims by them were put in; claims by women, as we have seen, were disallowed.

As a matter of interest, one sergeant of the 25th Foot received the medal for Genoa and five privates (two of the 11th, one each of the 50th, 51st and 69th Foot) for St Vincent. Two army officers—Captain Caleb Chute of the 69th Foot and Lieutenant David Maxwell of the 30th Foot—also received the medal; the former had the clasps for both actions, the latter that for Genoa only.

The only claim put in by a male child was that by Daniel Tremendous McKenzie, who is described in the Medal Roll as 'Baby' in the *Tremendous* in the action on 1 June 1794. Neither he nor his mother are shown in the muster book of that ship, but Daniel McKenzie, A.B., aged 27, who presumably was his father, is. This claim was allowed. I had said earlier² that 'Baby' might have been a clerical error for 'A.B.', but there is little doubt that D. T. McKenzie was a child who had been born on board shortly before the action.

The foregoing account is limited to two fleet actions during the French Revolutionary War. There was, however, at least one other occasion—when the fleet action was of less importance—in which soldiers' wives and children were exposed to the violence of the enemy at sea.

The probable employment of women who were on board a ship in action has already been referred to. Confirmatory evidence on this point is provided by the muster book of the *Goliath*, 74 (Captain Thomas Foley), which shows that, notwithstanding Admiralty regulations to the contrary, she had on board at the battle of the Nile the wives of three seamen and one marine. Two of the husbands were killed in the action and the other two died shortly afterwards of their wounds.

These four women rendered exemplary service both during and after the action, and for a period of four months were 'victualled at two-thirds allowance, per Captain's order, in consideration of their assistance in dressing and attending on the wounded, being widows of men slain in fight with the enemy on 1st August, 1798'. This period began on 3 August and ended

¹ The claim by Jane Townsend, who was on board the *Defiance* at the battle of Trafalgar. The other two claims were also refused (*The Mariner's Mirror*, Vol. xxiii, July 1937, pp. 366-7).

² *Ibid.* p. 366.

on 30 November, when they were discharged from the Supernumerary List, 'their further assistance not being required'. Whether or not they still remained on board after this the muster book does not record. Their names are:

Wives	Husbands
Sarah Bates	John Bates, A.B. (killed 1 Aug.)
Ann Taylor	William Taylor, A.B. (wounded; died 7 Aug.)
Elizabeth Moore	William Moore, ord. (wounded; died 31 Aug.)
Mary French	William French, Pte., Marines (killed 1 Aug.)

It was an eminently practical way in which to recognize and reward the devoted services of these four widows.

APPENDIX

Regulations and Instructions relating to His Majesty's Service at Sea,

Sect. ix, Chap. i, 1806

Of the Provisions

Article I

There shall be allowed to every person serving in His Majesty's Ships a daily proportion of provisions, as expressed in the following table:

	Bisket, pounds avoirdupois	Beer, gallons wine	Beef, avoirdupois	Pork, avoirdupois	Pease, pints Winch ^r	Oatmeal, pints Winch ^r	Butter, ounces	Cheese, ounces
Sunday	I	I	.	I	½	.	.	.
Monday	I	I	.	.	.	I	2	4
Tuesday	I	I	2	.	.	.	.	.
Wednesday	I	I	.	.	½	I	2	4
Thursday	I	I	.	I	½	.	.	.
Friday	I	I	.	.	½	I	2	4
Saturday	I	I	2	.	.	.	.	.
Forming a weekly pro- portion to each man of	7	7	4	2	2	3	6	12

together with an allowance of vinegar, not exceeding half a pint to each man per week.

Article II

In case it should be found necessary to alter any of the foregoing particulars of provisions, and to issue other species as their substitutes, it is observed that,

A pint of wine, or half a pint of rum, brandy, or other spirits, holds proportion to a gallon of beer.

Four pounds of flour, or three pounds thereof with one pound of raisins, are equal to a four-pound piece of salt beef.

Half a pound of currants, or half a pound of beef suet, is equal to one pound of raisins.

Four pounds of fresh beef, or three pounds of mutton, are equal to four pounds of salt beef; and three pounds of fresh beef, or mutton, to a two-pound piece of salt pork with pease.

One pint of calavances or dholl¹ is equal to a pint of pease.

Whenever rice is issued either for bread, pease, oatmeal or cheese, one pound of rice is to be considered as equal to a pound of bread, a pint of pease, a quart of oatmeal, or a pound of cheese.

A pint of wheat, or of pot barley, is equal to a pint of oatmeal.

Five pounds and three-quarters of molasses are equal to one gallon of oatmeal.

When sugar is substituted for oatmeal, butter or cheese, one pound of sugar is equal to two quarts of oatmeal, one pound of butter, or two pounds of cheese.

One pint of oil is equal to a pound of butter, or to two pounds of cheese; and half a pound of cocoa, or a quarter of a pound of tea, is equal to one pound of cheese.

Note. The variety of provisions was limited, and the quality of the salt beef and pork and of the beer supplied was often very unappetizing. Later, the official scale of rations was increased in certain respects, though not to any great extent until 1903, when the allowance provided for five meals a day and such items as Tickler's marmalade and other delicacies helped to enliven the monotony of the rations in earlier days.

Sources

Admiralty Medal Roll: General Service (Navy) Medal, 1793-1840. Muster books of H.M. Ships (PRO, Adm. 36):

<i>Agamemnon</i>	11360	<i>Fortitude</i>	11276
<i>Bedford</i>	11300	<i>Goliath</i>	14817
<i>Blenheim</i>	11688	<i>Illustrious</i>	11316
<i>Britannia</i>	11638, 12416	<i>Minerve</i>	13135
<i>Captain</i>	11797, 14801	<i>Princess Royal</i>	11372
<i>Courageux</i>	11462	<i>Terrible</i>	11632
<i>Diadem</i>	11821, 11823	<i>Tremendous</i>	11661
<i>Egmont</i>	11673		

1 A form of pulse.

THE KING'S PINNACE, THE *SWAN*
1642-1645

By A. Eames

THE decisive role played by sea-power in the Civil War has been rightly stressed by recent historians. One area in which the campaigns were materially affected by sea-power was North Wales. Correspondence relating to the King's pinnace, the *Swan*, provides an interesting commentary upon the Royalist failure to appreciate the vital importance of supremacy at sea in Liverpool Bay and the St George's Channel.

On 8 July 1641 a warrant to the Lord High Admiral stated: 'The King is pleased that his new pinnace, the *Swan*, now in Ireland shall be employed this year for the guard of the Irish Seas.'¹ Her commander was John Bartlett, a seaman who was to serve the King well. The absence of Bartlett's name from the lists of masters of ships of the Navy during the 1625-42 period, and his subsequent history (his request at the Restoration was to be given command of the post barques plying between Dublin and North Wales), suggest that his experience was confined to coastal waters. It may well be that he was connected in some way with the 'John Bartlett, merchant of Dublin', who delivered herrings to the royalist stores in March 1643; the fact that his fellow captain in the royalist squadron was a Thomas Bartlett may indicate a family connexion with the merchant seaman community of Dublin. Both Bartletts served with distinction in the Irish rebellion, and were recommended by the authorities in Ireland as men who 'upon all occasions expressed ready and forward affections to His Majesty's service'.² Their service was all the more valuable because of their ability and local knowledge: 'their abilities in their places and their knowledge of these coasts and harbours, are such as give us good satisfaction upon all occasions'.³

Twenty men were added to the *Swan*'s complement of forty in January 1642, and the crew of the *Confidence*, a ship 'of the burthen of one hundred tons and tonnage, carrying ten pieces of ordnance', commanded by Thomas Bartlett, was made up to forty.⁴ John Bartlett, who appears to have been the senior officer, put in a demand note for stores in February 1642, 'for such shipping as are employed and may be employed in St George's Channel

¹ C.S.P.D. Charles I, 8 July, 1641

^{2, 3} H.M.C., *Ormonde*, Vol. II, p. 213.

⁴ *Ibid.*

which must be speedily sent to Dublin'.¹ He ordered a supply of masts, ready made, for the *Swan*; the mainmast was to be 63 feet long and 'sixteen inches through', 'the foremast 52 foot long, 14 inches through' and 'a bowsprit of the same cantling'.² This was in accordance with contemporary practice, the foremast and the bowsprit were both to measure four-fifths of the mainmast. Although this was of course subject to slight variation, it would appear that the foremast and the bowsprit were usually made of the same length. In a paper presented to Buckingham, Mainwaring gave the contemporary formula for measuring masts:³ the mainmast was to be reckoned as four-fifths the breadth of the ship multiplied by three, the foremast four-fifths of the mainmast, and the mizzen mast half the length of the mainmast, the 'bigness of all masts to be 1 inch to a yard in length'. According to this formula, the beam of the *Swan* may have been approximately $26\frac{1}{4}$ feet.⁴ In addition, Bartlett wanted 'a boatbuilder sent over with material for building of boats, to say cliff boards for here is none to be had. We having lost our boats are fain to take away other men's boats for His Majesty's service which causeth many complaints and is the undoing to many poor men'.⁵ This is an indication both of Bartlett's wisdom and discretion, and also of the shortage of shipwrights and timber in the west-coast ports. His other requirements are worthy of mention, for they are probably typical of the stores and equipment borne by ships on the Irish station during the period '...cables of 5, 6, 7, 8, 9 and 10 inches of each sort three, and hawsers of 4 inches and 4 inches and $\frac{1}{2}$ six, rigging answerable to vessels that such cables will serve, with anchors answerable to the cables, with flags, ensigns, pennants, prop lanthorns, hamborrow lines, tarred lines, spun yarn and howsing, marling, canvas for sails, bolt rope and twine for sails, blocks of all sizes, and parills that will serve ships between three score and eight score, ten ton of saker shot, ten ton of minion and falcion shot, crossbar shot, langar shot, chaine shot, bolt shot, five hundred of each, cases for burr shot...'.⁶

The Bartletts plied frequently between Ireland and the two ports on the mainland, Chester and Beaumaris. Their task during 1642 and 1643 was twofold; on the one hand, they maintained communication between the forces on the mainland and Ormonde and the officers of the Crown in Ireland, whilst on the other they had to assist the land forces in the campaign

1, 2 H.M.C., *Ormonde*, Vol. I, p. 69.

3 Mainwaring, *Seaman's Dictionary*, Vol. II, p. 187. N.R.S.

4 That the masts demanded by Bartlett were not as thick as Mainwaring reckoned to be normal is not surprising, for Mainwaring himself suggested that the thicker masts were required for long voyages, and the *Swan* in home waters could more easily obtain replacements.

5 H.M.C., *Ormonde*, Vol. I, p. 69.

6 *Ibid.*

against the rebels in Ireland. At the outset the latter was more important, and Ormonde reported that the Bartletts had served with distinction and 'have with much faithfulness and industry served here in these troubled times, and with hazard of their lives gave us good assistance towards the relieving of Drogheda several times when it was straightly besieged by the rebels'.¹ The armistice between the King and the rebels in Ireland in November 1643 left the Bartletts free to concentrate on the maintenance of communications with the mainland. In addition, however, there was now another factor, for the Royalists planned to use the English forces in Ireland to assist in the campaign against Parliament, and Bartlett's squadron would be required to support the transport of these forces to Chester. North Wales was predominantly royalist, and during the early stages the harbours which the Bartletts needed were all friendly, nor was there much danger from the ships of Parliament, for their attention was mainly directed towards Milford and the Pembrokeshire campaigns. The significance and the danger of an effective union of the royalist forces in Ireland and Wales was not lost upon the Parliamentary commanders; it would not be an exaggeration to state that the main reason for the subsequent campaigns in North Wales was the realization by Parliament of the vital necessity for securing the bases in North Wales from which royalist shipping operated and where the Irish forces could be landed. As in South Wales, the Civil War was not so much a struggle between rival Welsh factions, as a battle between alien armies to secure bases vital both to sea-power and to the whole war. The retention by Parliament of the main base, Milford, dominated the war in the south, and nullified effectively both the Royalist preponderance ashore in South Wales and their capture of that other important base, Bristol; in the north there were two important bases, Chester and Beaumaris, and it was the fact that they were held by the Royalists that enabled the King to prolong the struggle.²

For the next two years the *Swan* succeeded in running an increasingly effective blockade, although it must be conceded that the main fleet under Swanley, the senior officer of Parliament's ships in the Milford area, was fully occupied in the south, whilst the merchant ships pressed into service and based at Liverpool under Danske were not likely to prove strong enough to challenge the *Swan*. Indeed at one moment the Royalists had an opportunity to gain complete mastery at sea in this area,³ but their failure to

¹ H.M.C., *Ormonde*, Vol. II, p. 213.

² The war at sea in the Civil War in this area is dealt with more fully in the present writer's unpublished thesis 'Sea Power and Welsh history, 1625-60', University College of North Wales Library, Bangor, and in *Transactions of the Caernarvonshire Historical Society*, 1955, pp. 25-51.

³ Obviously there was some excuse for Wake's inactivity, for the weather at this time of year was unfavourable. Archbishop John Williams writing from Conway to Ormonde about this time was not surprised at lack of news and letters from Ireland 'consideringe howe obstinately the

appreciate a fundamental of sea-power, the prime necessity of seeking out the enemy's fleet first and destroying it, together with their insuperable difficulties, combined to nullify their advantage. During the winter of 1643 and the spring of 1644 the Royalists had at their disposal three merchant ships of 400 tons each, 'mounted with sixteen or fourteen pieces of ordnance', hired for the King's service by the Earl of Castlehaven, and two ships commanded by Captain Baldwin Wake, in addition to the Bartletts' ships. This force was potentially and numerically stronger than Captain Danske's small squadron of Parliament ships based at Liverpool, but the royalist forces were dispersed and confined their activities to convoying troop-carrying ships from Ireland to Chester. Wake elected to remain at Beaumaris, much to the annoyance of the Anglesey gentry, rather than to take action against the weaker ships of Parliament, which were to play an important part in the future campaigns in North Wales. Whilst the Royalists frittered away their opportunities, Parliament's commanders were in a position to deny to them their 'inlets' as Warwick called them. In addition to the drive overland to secure the bases of Chester and Beaumaris, it was decided to establish a stranglehold over them by cutting their communications by sea. A closer blockade of the Irish coast was to be maintained by Swanley's squadron, but the most interesting feature of their plan, for the purposes of this article, was the capture of the *Swan*.

The circumstances of the capture of the *Swan* turned the knife in the wound for the Royalists both in Ireland and in North Wales. The gallant ship was not captured at sea in an exciting clash with the Parliament squadron, but stolen surreptitiously out of harbour whilst the captain, John Bartlett, and some of his crew were ashore. At the court of enquiry which was held immediately after the incident, Bartlett explained that he had not gone aboard his ship which lay at anchor in the Bay of Dublin on 6 November, 1645, 'as he had no money to pay the sailors'.¹ A few days earlier, a ship belonging to the Roundheads, under the command of a Captain Clarke, had

wynde hath remayned fixt in one point these six or seven weeks to the Admiration of the verie seamen' (letter printed in *Archæologia Cambrensis*, 1869, p. 310). But Wake's lack of initiative, however, was a serious matter, for he was a seaman of much greater reputation than the other captains involved in the area. He was one of the five captains who had remained loyal to the King when the fleet had sided with Parliament at the outbreak of the war. He had been compelled to leave his ship the *Expedition* in 1642 as his crew chose to enter the service of Warwick; there is no indication of his new command in 1643 in Carte's *Life of Ormonde*, but it was as captain of the *Proud Black Eagle* that he took Prince Charles and his retinue to safety towards the end of the war (Mainwaring, Vol. iv, pp. 263, 312, cf. also C.S.P.D., 1641-43, p. 557; Carte's *Life of Ormonde*, Vol. iv, p. 469). Professor Parkinson, in his *Rise of the Port of Liverpool*, p. 45, states that Danske was in command of the Parliament ships at this time, but I have been unable to trace how long he remained at Liverpool.

¹ H.M.C., *Ormonde*, Vol. I, p. 101.

appeared in the Bay and another witness, Lewis Walcot of Builth, Breconshire (probably a fisherman) alleged that a certain John Andoe, a pilot, 'had not been out in his fishing boat for six weeks till Clarke's ship appeared in the Bay, eight or nine days ago. Then he went out as if to fish and on returning said he had several of Clarke's men on board as he knew them well, having been pilot for them for 23 weeks.'¹ Andoe strongly denied complicity in the scheme to capture the *Swan*, but admitted having been employed by Captain Penn and Captain Swanley to pilot ships between Milford Haven and the Irish coast. From the evidence it appears that the Parliamentary squadron's commanders had decided to rid themselves for good of the *Swan*'s menace to their shipping, now that the campaign in North Wales was developing apace, and had ordered Captain Clarke and his ship to Dublin Bay with express orders to take the *Swan*. There are no details of Clarke's ship,² but apparently he decided to take the *Swan* by a stratagem, thereby avoiding a pitched battle and inevitable damage to his own ship. He may well have been influenced by information he received from Andoe relating to the habits of Bartlett and his crew.

The full story was given to the enraged Royalists a few days later by Thomas Suery,³ another fisherman, who had been seized whilst sailing in the Bay of Dublin by Captain Clarke's long boat on 5 November, and 'shut down in the hold' of the *Josline*. About 5 o'clock in the evening of the same day, Suery had heard sounds of activity up on deck, and heard Captain Clarke asking for volunteers, asking 'who would serve the turn?'. The master of the *Josline*, Banks, volunteered, and set out with about a score of the crew in the longboat for the *Swan*, Captain Clarke calling to them as they pulled away from the ship's side, 'Blades, be true one to the other; the lights will do you service.' A little after midnight, Banks was back aboard his ship reporting to Clarke that the *Swan* had been taken, and that he had left twelve men aboard her, and six aboard a 'Fleming' ship which, presumably, had also been captured. Banks was accompanied by the ship's gunner of the *Swan*, 'whom he announced to Clarke as the man who had given them the keys of the *Swan*'s gunroom'.⁴ Apart from the lieutenant of one of the ships, who had been wounded, they did not seem to have encountered much opposition; the prisoners taken told Clarke's boatswain that they had 'waited for cessation after cessation' and were no doubt willing enough to enter the service of Parliament where they had hopes of better pay.

¹ *Ibid.*

² Except her name, the *Josline* (H.M.C., *Portland*, Vol. 1, p. 305). In the lists of the fleets for 1644-45, the *Jocelyn*, commanded by Robert Clarke, is among the merchant ships—a 196-ton ship, with a crew of 59 men and 12 guns. *Thomason Tracts*, B.M. 669, f. 9 (8) and (36).

³ H.M.C., *Ormonde*, Vol. 1, p. 305. This evidence was given on 8 November, Suery having been released apparently before Clarke sailed for the Welsh coast.

⁴ *Ibid.*

Clarke wasted no time, and sailed, with his captured ships manned by skeleton crews, for the Welsh coast; sails had been taken from Clarke's ship for the *Swan*, another indication of the care with which this exploit had been planned. On the 7th, Clarke and his ships were off the Dee and Sir William Brereton was informed from 'Hilbree' that 'Captain Clarke, commander of the *Josline*, has brought in here Captain Bartlett's ship the *Swan*, and another, both stolen out of harbour. In Bartlett's vessel they have taken about 20 seamen and 12 soldiers' firelocks set to keep her.'¹ Brereton and the other Roundhead commanders were delighted at the capture of this 'ship of strength',² and Laugharne informed Lenthall in London later in the month: 'I heard from Anglesey that Captain Clarke had taken a Fleming worth £3,000 and Captain Berkley's ship with 18 guns, some brass culverins.'³ Little wonder, then, that Captain Clarke was 'very gratified'⁴ at the exploit; within a short time he had obtained command of the *Swan* himself and sailed in her for the next two years at least,⁵ on patrols against royalist and pirate shipping in the very waters in which she had made such a name for John Bartlett.

Within three months of the capture of the *Swan*, Chester was forced to surrender, and the Roundheads drove on, significantly enough, to capture the remaining base, Beaumaris. In both these campaigns an important role was played by the Parliament ship, the *Rebecca*, commanded by Captain Stephen Rich. The *Rebecca*, like Clarke's *Josline*, was a merchant ship which had been included in the fleets of 1644 and 1645; she is listed as a 250-ton ship, with a crew of 75 men, mounting 22 guns.⁶ During the closing stages of the siege of Chester, Rich seems to have been the senior officer of the ships blockading the port—they were mainly small coal boats which he had pressed into service as guard ships in the Dee Estuary, while he patrolled the approaches in the *Rebecca*.⁷ Following the surrender of Chester in February 1646, Rich sailed to Anglesey with the letter containing secret

¹ H.M.C., *Portland*, Vol. I, p. 305.

² Letter from Sir Wm. Brereton to Lenthall, Nov. 8th 1645, quoted in Morris, *The Siege of Chester* (1924), p. 139.

³ H.M.C., *Portland*, Vol. I, p. 315.

⁴ Suery's evidence. H.M.C., *Ormonde*, Vol. I, p. 315.

⁵ In August 1646 he was near 'Chester river' writing from aboard the *Swan* giving details of the 'papists' at the Isle of Man, and two years later he was there again, this time after capturing 'two small barks betwixt Carrickfergus Bay and the Coast of Scotland'. H.M.C., *Portland*, Vol. I, pp. 385, 495.

⁶ She is listed in *Thomason Tracts*, in the B.M. 669, f. 9 (36).

⁷ Morris, *Siege of Chester*, pp. 82, 104, 165, 166. In April 1645 Colonel Chidley Coote, writing from Hooton, had told Brereton that there was need for a much closer blockade if the Royalists in Chester were to be prevented from receiving supplies—'You must take some better course to besiege it by sea than by a stinkeinge boate or two yt are not able to doe any good'—quoted in Morris, *Siege of Chester*, p. 82.

instructions for the gentlemen who were to assist in the betrayal of the island.¹ Early in June, Rich was said to have landed men from the *Rebecca* 'in the dead of night' near Beaumaris, and to have threatened 'people with burning of houses, cutting of throats, . . . to the great terror of the inhabitants'.² Rich denied this, but it was not many days before the presence of the *Rebecca*, and the approach of the Parliament forces overland, induced the gentry of Anglesey to surrender.

In the Menai Straits and the waters off Anglesey, as in the approaches to the Dee, there is no record of the *Rebecca* being challenged at sea. What would have been the outcome of a clash between Bartlett in the *Swan* and Rich's *Rebecca*? It is tempting to reflect whether the Civil War would have been prolonged in North Wales had Captain John Bartlett been aboard his ship that November afternoon in 1645, and had he been able to pay his men their well-earned wages. Here, as elsewhere, the King's financial distress and his lack of shipping proved to be his downfall. The *Swan* in Bartlett's hands might well have changed the course of Welsh history during the closing stages of the Civil War.

¹ For details of the plot and those involved in it, see 'Anglesey in the Civil War', by Professor A. H. Dodd, in *Transactions of Anglesey Antiquarian Society*, 1952, p. 17.

² National Library of Wales, *Calendar of Wynn Papers*, 1783, 1784, 1785 1786, 1787, 1788. Rich was rewarded for his services to Parliament by being made 'commander of the ordinary packet boats passing betwixt Holyhead and Dublin'. C.S.P.D., 1647, p. 612.

NOTES

SALT WATER MILLS (see *M.M.*, Vol. 45, p. 81)

As I see that no other member, in replying to Mr Harold Lowenstein's enquiry about the above, has mentioned Bishopstone Tidemills at the mouth of the Sussex Ouse, near which I lived as a child, I have looked up some information about them which may possibly be of use to him.¹

Thomas Walker Horsfield, in his *History, Antiquities and Topography of Sussex* (1835), says: 'Rape of Pevensey, Hundred of Bishopstone. Part of the Parish is in the marsh of the embouchure of the Ouse. Over this track, stretching from Newhaven or Meeching² to Seaford and northward beyond Lewes, the waters of the sea formerly flowed.... the tide corn mills, a very extensive establishment, were erected by the Duke of Newcastle³ in 1761. They then contained four pairs of stones but now run sixteen. The mills, together with about twenty acres of marshland adjoining, and also the space over which the tide flows eastward of the mill, with the embankment of the Buckle Houses,⁴ are now owned by Messrs Catt and Son, who have a good house on the premises and have erected convenient cottages for the workmen... the land lying between the mills and Newhaven harbour, containing about 60 acres, the property of the Earl of Sheffield, was embanked by Mr Catt in 1812 and 1813.'

Mark Antony Lower, in his *Worthies of Sussex* (1865) gives a full though rather date-less account of William Catt (1780-1853), who at the beginning of the nineteenth century exchanged a small mill he had at Lamberhurst with Mr Barton of the firm of Barton and Catt of the tidemills, the Bishopstone Catt being Edmund, a cousin of William. William then quarrelled with Edmund, bought him out and for a time ran the mills alone, doing very well in the Napoleonic wars, supplying flour to the troops camped along the coast. After the war he had 'for many years' a partner, Edmund Cooper and the firm was Catt and Cooper. Eventually Cooper retired and it became Catt and Sons. Lower also states that the land mentioned by Horsfield as embanked in 1812 and 1813 was 'waste land, embanked and reclaimed as arable land first and subsequently used as a reservoir of additional water-power. In the third year a crop of oats was grown on the arable portion, which repaid the expenses of reclamation and induced him (Catt) to increase the power of the mill as mentioned' (i.e. to sixteen pairs of stones). In Lower's *A Compendious History of Sussex* published in 1870 he again mentions the tidemills as 'long and still the property of the family of Catt'.

My personal childish recollections of the tidemills, at the turn of the present century, are of a gaunt, yellowish building with broken windows through which one saw rusting machinery and a high-up pulley. What I suppose was the 'good house' was still there and also the 'convenient cottages' and I suppose they still are, but I am told most of the mill has gone though I see that David Harrison's *Along the South Downs*, published in 1958, says that its ruins can still be seen.

¹ The County History of Sussex is not yet complete and has not reached an account of the Rape of Pevensey though there is information about the Ouse estuary in Vol. v under *Newhaven* (Rape of Lewes). Probably an up-to-date record of the Tidemills could be traced in the publications of the Sussex Archaeological Society, *Sussex Notes and Queries* and the *Sussex Magazine*.

² About the middle of the sixteenth century, when the Ouse changed its course and entered the sea at Meeching instead of at Seaford, Meeching became the 'new haven' and took that name.

³ The statesman Thomas Pelham-Holles (1693-1768) who owned Bishopstone Place (demolished 1831).

⁴ The Buckle Inn and adjoining cottages still stand on the Newhaven-Seaford road. The Pelham crest was a buckle.

I may mention that the Sussex poet, James Hurdis, in his poem *The Favourite Village* (Bishopstone), published in 1800, has a description of the port of Newhaven with ships loading flour from the 'contiguous mill' as a 'welcome supply to the far-distant camp or windbound fleet of war'. He also tells how the mill became 'sea-locked' in storms.

G. RUTHERFORD

ARABIAN LATEENERS (see *M.M.*, Vol. 46, p. 155)

I was very interested to read D. L. Dennis's enquiry in the May issue relating to Arabian Lateeners.

The method employed to go about in a lateen-rigged vessel is of course to wear. The principle is the same for all, large or small, and varies only to the extent of the gear needed to support the weight of the yard and sail. The yard is suspended at about the point of balance by the end of the mast which is canted forward. The vessel turns down with the wind, the tack and sheet are loosed, the tack being brought in under the mast. The sheet and yard are then passed in front of the mast and clewed down, the tack then being made fast. The point of suspension at the mast head is loose so that the action of passing the yard in front of the mast head is automatic and very simple.

In small vessels the yard is more or less fast to the mast head. In larger craft the yard is suspended by heavy jeers with a heavy double cable passing through sheeves fitted in the mast head. The lower block of these jeers (in large craft) is usually built into the hull and is an integral part of it, the upper block often being of four parts. The parral at the point of balance of the yard is heavily bolstered or puddened, frequently has a grommet round the mast with a down haul single pendant. There is a halyard to the peak of the yard which is used to assist in bringing round the yard and sail when wearing.

The mast is supported in the main by the jeers which take most of the weight, but they are assisted (in large craft) by pendant shrouds which are composed of two single blocks with a fairly long pendant from the mast head, the lower block having a toggle which is slipped through rope grommets fitted at convenient points round the vessel. These are moved around to suit the course being steered. The mast is invariably a single tree and I have never seen a built-up mast even in the largest craft.

The yard is composed of two pieces spliced together at the centre, the lower being the heavier of the two. It is heavily puddened at the point of balance. The lower part of the yard being the heavier, the upper portion is considerably longer. In length, the yard is slightly longer than the craft, but there is no rule, and much depends upon local custom, whether single, two- or three-masted. The yard is devoid of foot ropes, and all work of furling the sail is done by the crew climbing up the mast and yard in their bare feet. Indeed the Maldive and Malabar brigs—now gone—do not have ratlines.

Sails are not composed of cloths sewn together as we understand it. The bolt ropes, outlining the shape of the sail, are laid out on level ground and staked down, the head rope being heavy and the foot rope heavier still. Coir lines are then laid at intervals of 6-9 inches from the peak to the clew and so on to the luff of the sail. In the case of Arabian craft, the luff is quite large and may be as much as one-fifth of the height of the leech. Cloths are then sewn on the lines in continuous strips the whole height of the sail so that when finished the sail consists of a large number of lines filled in with narrow cloths. The strength of the sail is thus that of the lines, whilst the foot rope provides both the tack and the sheet. In large vessels there must be tackle to handle the foot rope; in small craft the single rope serves the purpose.

The size of the luff varies considerably according to the locality of the craft, the Malabar Pattimar or Fatehmari probably having the smallest, with the Arab Baggella (now almost extinct) or its successor the double-ended Boom at the other end of the scale with the Cutchi Kotia following close. The widths of the cloths also varies, again with the Pattimar having the narrowest, the Boom the widest. There is no rule; only local custom.

Whilst the sail can be controlled from deck, it cannot be completely furled except by the crew straddling the yard and securing the sail. The yard is rarely lowered and only when moored in an exposed anchorage to reduce the weight aloft, or when in port.

In fine weather, it is not infrequent for lateen craft (I've never seen them referred to as 'lateeners', 'leg of mutton' was more common in bygone days) to rig a topsail. This incongruous sail was hoisted on a yard supported by a jury rigged topmast and extended from throat to peak of the yard like an ordinary square sail narrowed and stretched out. When carrying the topsail, they generally also rigged a large jib, also on a jury-rigged boom extended forward. The Pattimars almost invariably carried a jib; but they also usually hoisted a jigger, rarely a topsail. Kotias often hoisted a topsail, but rarely a jigger, and the same applied to the Baggela, although I have seen photos of Baggelas taken many years ago carrying three masts.

It is my theory that the Mediterranean Lateen vessels copied those of the East, except that they did not employ a sloping mast and probably suffered of a consequence, because the ease with which the Eastern lateen sail can be handled can only be illustrated by means of a demonstration model, or, of course, the real thing. A Nakhoda (skipper) once said to me (in the vernacular) 'if you can sail one of those contraptions, you can sail this with ease' and left me with the sheet. He was right, and the contraption he referred to was a Bermudian Sloop.

A final word: please do not leave out the 'i' in Bermudian—the Bermudians do not like it.

N. LISHMAN

NOTE ON THE LISSLIE COLLECTION OF SHIPS' DRAFTS

A very interesting collection of drafts of vessels has recently been presented to the National Maritime Museum by the sister of the late Henry Walter Lisslie, shipwright, of Appledore.

As far as I can piece it together from conversations with her, with Lisslie's son (also Henry Walter), with Alec Ross aged 87, retired Master Mariner, and with other Appledorians, the story of these drawings is as follows.

Lisslie or Lissley (as he spelled his name, his son told me he himself spells it Lesslie) was born in 1859 and died in 1948, aged 89. He first worked for Robert Yeo whose brother William was responsible for the building of the Richmond dry dock and for much shipping activity at Appledore in the middle of the last century. He was later employed for a considerable time by Robert Cock, shipbuilder, of Appledore, first at the yard below the church, all traces of which have long vanished in road improvements, and later at the upper yards when Cock moved there in the 1880's. He later worked for W. Westacott of Cleave Houses, who had previously been a shipbuilder on a considerable scale at Barnstaple. His last employer was P. K. Harris, whose descendants now run the Appledore yards, and he was employed on the building of the *P. T. Harris* of 1912, one of the last three merchant schooners to be built in the United Kingdom. For Robert Cock he went to Port Said to supervise the erection of pre-fabricated steel barges built at Appledore.

Lisslie served his time as a shipwright and worked as such all his life. He also held shares in a number of local vessels, the *Esther*, the *Jane*, the ketch *Trio* and the *Dispatch*. He left a not inconsiderable fortune. He learned to read and write at a local private school, and while working for Robert Cock he came into contact with a man whom Alec Ross remembered as 'Pimpley' Bear of Northam who knew how to draft out a ship and who taught both Lisslie and Robert Cock's son James to do so. One of the drawings, of collision damage to H.M.S. *Vanguard*, copied from an original dated Devonport Dockyard, September 1875 by Chief Constructor Amoriy or Amoriq, is signed 'Copied by William Bear—Northam—Pimpley July 1878'. This perhaps suggests that Bear was trained at Devonport. Graham Farr tells me that George and John Cox of Cleave Houses whose last vessel, the *William Geake*, was launched in 1876 learned to design a vessel in the Admiralty yard at Devonport also. Perhaps it was a local practice in North Devon at that time to do so.

According to Alec Ross's recollection William Bear did a great deal of drafting for Robert Cock, but after James Cock had learned the art he took on most of this work. Lisslie's son remembers his father as doing his drawing in his spare time in a room of his home set aside for the purpose. He also remembers him as being at times 'the only draftsman in Appledore' and much in demand in consequence.

The collection of drawings which has now come to the Museum is part of what Walter Lisslie left behind him. It comprises drafts of ketches and schooners, of smaller vessels which are probably barges for the local gravel trade, and of small square rigged vessels and several drawings of Penzance luggers which are remarkable in that the vessels depicted all have counter sterns. There are also one or two drawings of warships and steamers, three drawings of yachts and a number of blue-prints of steel barges built by Robert Cock in the early years of this century. They total forty-three drawings. Some of the vessels, especially among the ketches and schooners, are named but only one actual vessel has so far been traced. She is the yawl yacht *Ventura* built in the area of the Customs Port of Barnstaple in 1884, 68 net register tonnage, first registered at Cork. Lisslie's son, however, is emphatic that some of the Penzance luggers were built by Robert Cock.

Many of the vessels in the drafts, especially the smaller ones, show certain marked characteristics of hull form. There is a tendency to repeat closely similar designs with an elliptical stern and either a straight, almost vertical stem with a decorated gammon knee above or a slightly sloping straight stem shaping away above the waterline into a graceful curve. The drawings also show certain 'trade marks'. Many of them have a very pronounced oculus on the bow which is in some cases added, apparently as an afterthought, in pencil. Lisslie's son and daughter both spoke of this as being a device their father used constantly. Shield head ornaments are also depicted in a number of the drawings and the rudder shape is characterized by a pronounced nick at the blade head.

H. Oliver Hill, Graham Farr and I recently carefully examined the drawings. We came to the conclusion that a number of them at least would appear likely to have been trial drafts from which no vessels were necessarily ever built. One unnamed drawing, however, appears to match fairly closely to one of two completed half-models which Lisslie left behind him and which his daughter remembers as having heard him say he had made. This model has his nicked rudder and also has the oculus. While his daughter had heard it said that this was the model from which Robert Cock's schooner, later a ketch, the *Rosie*, launched at Appledore in 1885 (see *The Merchant Schooners*, Vol. 2, pp. 57 and 60), was built, while it is perhaps a little finer aft, the hull form bears a very close resemblance to that of two somewhat unusually shaped vessels, the *Emma Louise* and the schooner *Annie Christian* (later re-rigged as a ketch and renamed *Ade*), both built by Westacott at Barnstaple, respectively in 1883 and 1884. Moreover, the measurements of the model would appear to tally exactly with those of the *Emma Louise* on a scale of one-quarter-inch to the foot. The model shows the shield head ornament of the drawings. This somewhat unusual device was notable on the stem heads of both the *Emma Louise* and the *Ade*. Both these pieces of carving have been preserved. I have that of the *Ade*, Michael Bouquet has that of the *Emma Louise*.

In the absence of any other evidence, and bearing in mind that a connexion with Westacott at an only slightly later date is strongly suggested by the building of the *Ventura* in Barnstaple Customs area, where Westacott was much the most important builder, bearing in mind also that Lisslie worked for Westacott for a time at a later period, it is perhaps a permissible hypothesis that Lisslie, perhaps under the close supervision of William Bear, produced a design from which the *Emma Louise* was built with slightly fuller after-body, and also the *Annie Christian* to very slightly larger dimensions. The making of the half-model would perhaps be intended to celebrate a vessel actually built.

The identification of the other half-model left by Lisslie is more difficult. Captain W. J. Slade, author of *Out of Appledore*, on seeing it, but at the time unaware of the probable identity of its companion, at once recognized in it the shape of the *Heather Bell*, a ketch built at Barnstaple by Westacott and owned by the Slade family for twenty-six years. Although not agreeing with the exactness of those of the *Emma Louise* with those of the other model, the dimensions of the *Heather Bell* compared with the model on a one-quarter-inch scale are very close. The description of the *Heather Bell* on her first entry at her first Port of Registration, Bridgwater, also tallies. However, she was built in 1870, which means that Lisslie cannot have designed her. It may be of course, that the model is in fact one inherited from William Bear, that he was responsible for the *Heather Bell* and that he passed on to Lisslie not only his skill but also the eye and the nicked

rudder. At any rate, in view of the recollections of those who knew her intimately of the hull form of the *Heather Bell*, Lisslie's stern and straight stem and wall-sided bows were clearly inherited from those who had gone before. Perhaps the more developed stern and curved stemhead and more imaginative lines of the *Emma Louise* represent a refinement by this man of Appledore of the old Barnstaple tradition? Perhaps on the other hand, despite the family tradition to the contrary, both models represent the work of William Bear, or even of another, and, as representative of vessels built and proved successful, may have been used by Lisslie as a basis for his early practice designs. Weight is lent to this theory by the fact that one of the drawings is marked 'Lisslie model the first—1884'. Thus his inspiration, like the eye and the nicked rudder, may have come from the unknown man or men who made the half-models for Westacott of Barnstaple between the late 'sixties and middle 'eighties.

BASIL GREENHILL

AN ADMIRAL'S CABIN IN THE EIGHTEENTH CENTURY

I have just come across two references (P.R.O. 30/20/7), which throw a little light on this subject. In October 1760 Rear-Admiral Rodney was about to hoist his flag in the *Nottingham* at Portsmouth. The accommodation was unsatisfactory, and one of the things lacking was 'a green floor cloth' for the use of his cabin. The flag-captain had made a demand to the dockyard and been fobbed off with the reply that there was no 'Green Bays' in store. Rodney was not going to be put off like this, and on 15 October he wrote to the storekeeper himself, emphasizing that a green floor cloth was 'according to the Custom of Flagships', and suggesting that there must have been some mistake as the *Mars* had lately been supplied with some. As there are no more letters about his cabin in the *Nottingham* he probably got what he wanted.

A little later he hoisted his flag in the *Marlborough*, and it is clear that he did not intend to stand any nonsense from the dockyard a second time. Writing to the same storekeeper (whose name by an odd chance was Greenway) on 10 February he says: 'I desire you will supply her with the additional stores usually allowed flag ships, Particularly Green Bays Cloths for the Great Cabin and State Room.'

J. D. SPINNEY

THE FOUDROYANT

For many years the Training Ship *Foudroyant* has provided holiday training courses for boys and girls. It is most fitting that the oldest wooden ship afloat should be serving to introduce new generations to the skills and satisfactions of sail and oar.

We believe that the unique facilities afforded by T.S. *Foudroyant* could be used to offer both a valuable experience and useful incentive to those secondary modern boys who leave school at the end of the fourth year without being recommended to take an external examination.

The scheme would work like this: one week, commencing on a Saturday, or more if the demand warranted it, would be reserved by the Captain Superintendent for what we propose to call the *Foudroyant* Scholarship Scheme. We are inviting each local authority having an interest in the development of school sailing or the teaching of nautical subjects to nominate a boy or boys in the category described, and to pay the cost of the boy's week in *Foudroyant* which, excluding rail fare, would be £7. os. od. We should not presume to suggest a selection procedure, but we would emphasize that our hope is for the scheme to be seen as a special reward to the industrious, well behaved but less gifted boy. We suggest that such a scheme operating through the schools could have most beneficial results among a class of boys who by and large have no special or tangible prize to strive for in their school careers, and for whom the final year of schooling often appears increasingly pointless.

On board the boys would be divided into two watches; while one watch is sailing or pulling with *Foudroyant* instructors, the other watch would be doing lessons with a nautical bias under schoolmasters specially chosen for their interest in and knowledge of the sea. A boy who has spent the morning sailing in the Solent will see history in a new way when in the afternoon he learns about the Spithead Mutiny, or the origins of the Tudor Navy in Henry VII's reign. He will see

a new meaning in literature when he discovers that Kipling and Masefield express the thoughts he has half divined in his new experiences.

We should of course not want to limit any authority to sending only one boy, although we believe that the experience of meeting boys from other parts of the country will not be the least valuable aspect of the week. We should also welcome boys entering into the scheme, being directly sponsored by their schools. The cost is trivial, the possibilities immeasurable.

The Governors of the *Foudroyant* Trust gladly support this scheme, and wish to acknowledge their indebtedness to G. W. Pattison, Esq., M.A., the Hon Secretary of the Essex Schools Sailing Association, who was responsible for the idea and its development. By way of showing their appreciation they will make suitable awards to boys who show outstanding quality.

Anyone who would like to know more about the scheme is very welcome to apply to:

(1) Captain Superintendent,
T.S. Foudroyant,
 Gosport,
 Hants.

(2) The Hon. Secretary,
Foudroyant Scholarship Scheme,
 'White Webbs',
 Maltese Road,
 Chelmsford.

F. G. G. CARR, W. C. PRIMMER

NEW LIGHT ON THE MUTINY AT THE NORE: A POSTSCRIPT

An examination of the Muster Books of H.M.S. *Nassau* for 1797¹ shows that the author of the letters printed in the *Mariner's Mirror*, Volume 46, No. 4, was wrongly identified as Joseph Hardy, A.B. The author was (as his signature would suggest) Andrew Hardy, Master's Mate, whose name appears in the Muster Book some pages after Joseph² who is shown as having been discharged to H.M.S. *Sandwich* on 28 April before either the letters or the Mutiny began.³ Andrew Hardy's birthplace is given as Cork (to which city it will be remembered the letters were addressed) and his age as 21 on entry to the ship in April 1795. His subsequent career may be followed in detail from the Admiralty Records in the Public Record Office.

He passed for lieutenant in 1799 and his Passing Certificate⁴ gives his date of birth as 'October 19, 1774 in the Parish of Holy Trinity, otherwise Christchurch in the City of Cork', and his parents' names as Simeon Henry and Jane Hardy. Most appropriately he had started his six years service in H.M.S. *City of Cork* and continued in H.M. Ships *Amphion*, *Nassau* and *Andromeda*. His first appointment after being commissioned was to H.M.S. *Good Design*,⁵ whose Captain wrote to the Admiralty asking for Hardy, having heard good reports of him,⁶ and he subsequently served in H.M. Ships *Dart*, *Desiree*, *Rosario*,⁷ *Goliath*, *Dryad* and *Brisk*⁸ from which last ship he was discharged to sick quarters at Cork⁹ in July 1808.

¹ Adm. 36/12471 and 12472.

² Andrew Hardy was no. 273 in the Muster and Josephy Hardy no. 19.

³ He does not, however, appear in either the *Sandwich*'s Muster Book or Pay Book for that date [Adm. 36/11621 and Adm. 35/1684].

⁴ Adm. 107/23, no. 111.

⁵ Adm. 36/12914 and Adm. 24/17, f. 319.

⁶ Letter dated 20 May 1799 from Captain Inman: Cap. I, 55 [Adm. 1/1990] and 21 May from Captain Rathbone: Cap. R. 88 [Adm. 1/2402].

⁷ IND. 9255 (1), (2) and Adm. 24/17, f. 319.

⁸ IND. 9256 (1), (2), (3) and Adm. 24/17, f. 319.

⁹ Adm. 102/166. He was there from 21 July to 31 August and signed a receipt for £3. 6s. 7½d. being subsistence money for 41 days.

In May 1810 he wrote to the Admiralty transmitting a medical survey showing him to be afflicted with chronic rheumatism and general debility and asking to be placed on Half Pay.¹ Their Lordships approved and he appears in the Half Pay Registers for that year.² In 1811 he was again writing to the Admiralty (from Georges Street, Cork) asking for a shore appointment.³ His second letter is worth printing here:

*'Cork. Georges Street. 29 July 1811
Sir,*

I take the liberty to acquaint you that I had applyed (last March) to my Lords Commissioners of the Admiralty for an appointment on shore (thro' inability of serving afloat) since that period I have lost a dear and affectionate Father who has left a widow'd Mother and three daughters under the protection and support of his sons—whose endeavours it is there wish to render their lives as happy and comfortable as possible so that they may not feel that heavy loss they have so lately sustained.

As it is the wish of my Heart to be able to make an addition to what I at present allow my sd. Mother from my half pay I humble petion my Lords Commissioners of the Admiralty would be pleased to put me into any situation on Shore that I may be able to encrease the income I allow the Family for their comforts.

I feel with the greatest regret my not be able to serve at Sea having being since the year 1793 in constant Active service (until these last 2 years) and I trust I had served with credit to myself and the approbation of my superiors—Until I was violently attacked with the Rheumatism which has brought on total weakness, Debility and a severe Stricture which I have laboured under this time past.

I hope their Lordships will forgive the freedom I have taken in troubling them with my family grievance.

I am Sir,
With the greatest respect
Your Humble & obed^t Servant
And^w Hardy'

[Minute]

'Aug. 3

Acquaint him his letter has been laid before their Lordships.'

Lieutenant Hardy's style and spelling had not improved since he wrote his letters from the Nore, and the story of domestic hardship revealed in clumsy sentences reminds us of another poor lieutenant (of the Marines) who was making his first appearance in a manuscript being penned by an English lady with naval connexions in these same months of 1811.⁴ The Secretary of the Admiralty directed the acknowledgement of this letter and this was done,⁵ but there is no evidence that Hardy was given any appointment, and indeed as the Secretary had commented on his first letter, his health did not appear equal to any of the services he had enumerated.

He died early in 1816⁶ aged 41. One cannot help wondering whether the breakdown in his health when he was 35 and his early death had not been occasioned by the unsatisfactory conditions in the ships of the Royal Navy which had been one of the reasons for the Nore Mutiny.

1 Lieuts.' Letters, H. 111, 2 May 1810 [Adm. 1/2930].

2 Adm. 25/158.

3 Lieuts.' Letters, H. 403, 26 April 1811 [Adm. 1/2931] and Promiscuous Letters, H. 1338, 29 July 1811 [Adm. 1/4699].

4 Lieutenant Price in Jane Austen's *Mansfield Park* begun in 1811 and published in 1813. 'Miss Frances married in the common phrase to disoblige her family, and by fixing on a Lieutenant of Marines, without education, fortune or connexions, did it very thoroughly.'

5 Secretary's Common Letters. 3 August 1811 [Adm. 2/868].

6 The Half Pay Register gives the date of cessation of pay as 29 February 1816 [Adm. 25/173], but a letter from Wm. Marsh gives January 14 as the date of death. [Promiscuous M. 406, 16 May 1816. Adm. 1/4914].

[All references to Manuscript sources are to documents amongst the Admiralty Records at the Public Record Office. Unpublished Crown Copyright material has been reproduced by permission of the Controller of H.M. Stationery Office.]

E. K. TIMINGS

QUERIES

1. (1961.) INQUIRY RE CERTAIN OFFICERS AND MEN. (a) Is anything known of the place of birth, origins, background and subsequent fate of James Maloney of H.M.S. *Speedy* who, under sentence of death for having several times deserted his ship, was reprieved by Sir John Jervis just following the Battle of St Vincent?

What happened, after he was paid off from H.M.S. *Victory* in 1806, to Able-Seaman John Brown of Waterford whose descriptions of Trafalgar and the events immediately afterwards are quoted in Kenneth Fenwick's 'H.M.S. *Victory*' and other accounts of the naval campaign of 1805?

(b) A century ago the stirring events were in progress which led to the unification of Italy. One of the most graphic accounts of these events is Rear-Admiral Rodney Mundy's 'H.M.S. *Hannibal* at Palermo and Naples'. Mundy, clearly a capable officer and a liberal-minded and far-sighted man, mentions that he was a midshipman in H.M.S. *Euryalus* in the Mediterranean in 1822. Was this the *Euryalus* of Trafalgar?

Mundy was in 1854 captain of H.M.S. *Nile*, and in 1861, after taking his squadron to the Eastern Mediterranean, went home on sick leave. His comments on the condition of the French fleet at the time, on the manning problems of the British navy, on Italian seamen as he observed them, on the part played by the Sardinian fleet in hastening the unification of Italy, on Persono, later to be defeated at Lissa but favourably spoken of in his book, are all of deep interest. What were the chief events in Mundy's career between 1822 and 1854, and after 1861?

J. DE COURCY IRELAND

2. (1961.) REEFING GEAR. I should be glad to know when the patent reefing gear for square topsails was first invented and used on the Breton schooners. Was it long before the 1914 War? Did it become general quickly? I have knowledge of only one British schooner being so fitted, namely the *Ythan* of Inverness. Can anyone tell me of any other British vessel with this reefing gear for the square topsail, also what were its defects, why was it not more used this side of the Channel?

H. O. HILL

3. (1961.) SURGEONS TO PRISONERS OF WAR. Apropos of the article on the Naval Medical Service, 1793-1815 (May 1960), can the writer say whether the surgeons to prisoners of war were Naval or civilians? In 1790 Evan Evans was appointed Surgeon's Mate of a warship by a warrant from the Principal Officers and Commissioners of His Majesty's Navy, but in 1794 he was only given a letter from the Office for Sick and Wounded Seamen when appointed Assistant Surgeon to Mill Prison, Plymouth. Why this difference?

EVAN M. P. EVANS

4. (1961.) EARLY SMALL BOAT VOYAGES. Is there any documentation for the following oft-reported but unverified small-boat trans-ocean voyages?—(1) Captain Josiah Shackford. From Bordeaux to Surinam in a 15-ton sloop, 3600 miles in 35 days, in 1786. (2) Captain J. M. Crenston. From New Bedford to San Francisco in *Tocca*, a 40-foot cutter, 13,000 miles in 226 days, in 1849.

RICHARD GORDON MCCLOSKEY

5. (1961.) BOMB VESSELS. I would be glad to be informed of any notable occasions when Bomb Vessels were used before 1759.

J. D. SPINNEY

6. (1960.) GUNNER'S HANDKERCHIEF. Can any member say what a Gunner's Handkerchief is other than the black silk worn originally as a sweat band and now around the neck to the bottom of the 'V' in the modern sailor's uniform.

J. E. CAPPER

SHORT QUERIES

7. (1961). (a) What is the origin and earliest regulations requiring ships to keep log-books?
 (b) What are Abraham Men and how did the term 'Sham Abraham' originate?
 (c) How did the expression 'sheer off' get into nautical parlance? B. LOW KINGSTON
 (d) Lascars are often seen in the crew of British ships. What is known of their origin and nautical background?
 (e) Keelhauling. This form of naval punishment is often referred to in fictional books of the sea. Was it actually applied? J. CLARK NEWSOM
 (f) When and why was the Royal Salute fixed at 21 guns? When is a Double Royal Salute fired?
 (g) What was the punishment known as 'Bucking' which long ago was inflicted both in the U.S. Navy and the Royal Navy?

CHARLES GIBBONS

ANSWERS

15. (1960.) SEASICKNESS. In 1597 in the Azorean Voyage, the Fleet was again and again driven back by storms. A letter from one of Essex's captains dated from Plymouth, 24 July, describes the damage to the Admiral-General's flagship, and adds, 'God grant that his too much fondness to pursue his country's enemies do not endanger so worthy a member of our common-weal. My self am determined to follow him to the last.... *Sir Richard Ruddale was yesterday buried here, being dead of sea sickness. This storm hath killed the hearts of many voluntary gentlemen.*'

Among them was John Donne, the future Dean of St Paul's, whose poem *The Storme* has been regarded by Donne's editor as mere rhetoric. But on comparing it with the unpublished Journal of the Master of the Field Ordnance, Sir George Carew, it is found to be remarkably correct. See *Elizabethan England... In Relation to all Foreign Princes*, Vol. x (1953), pp. 232-4.

'Among "voluntaries" for whom at the outset the elements had been too strong, was young Richard, Lord Burke, who had won his knighthood the previous year at Cadiz. The Admiral General [Essex] did not send him back without credentials. "From aboard the *Due Repulse* the 11th of August 1597" Essex had written to Secretary Cecil, "The bearer hereof is the Earl of Clanrickard's son, whom I have brought up from a boy; and the cause why I now return him out of this journey is only the indisposition of his body at sea. I would not let him come to you without good commendation from me...."' (*ibid.* p. 235).

Professor Callender used to deplore that this Azorean voyage had been treated too casually in our time. He offered to assist in a precise examination: the result (including his annotations on the official despatch) could not be published until after his death (*op. cit.* pp. 193-313). Whereas Oppenheim had rashly alleged Essex's command merely nominal, his Commission is as absolute as it possibly could be, including power of life and death. And far from his being (as Oppenheim fancied) 'a weak man following the line of least resistance', his Rear-Admiral Sir Walter Raleigh and other of his officers repeatedly testified to his determination and perseverance. The despatch summing up the events ends thus:

'We have failed of nothing that God gave us means to do; we hope her Majesty will think our painful days, careful nights, evil diet, and many hazards deserve not now to be measured by the event. The like honourable and just construction we promise ourselves at the hands of all my Lords [of the Council]. As for others that have sat warm at home and so now discent upon us, we know they lacked strength to perform more, and believe they lack courage to attempt so much. [Signed] Essex. T. Howarde. Ch. Mountjoy. W. Ralegh. Fra: Vere. An: Sherley. C. Blount.'

But those 'that have sat warm at home' in the nineteenth century heaped random scorn upon this expedition; including Sir John Fortescue, in *The History of the British Army*, who even set it in the wrong year. The usual nineteenth- and twentieth-century-epithet is 'disastrous', with no particulars except as to to Raleigh landing at Fayal (of which his own account in his *Historie of the World* is seldom consulted by the scoffers).

Comparing the English evidence with the quantity of unpublished Spanish material, it appears that the storms which baffled Essex and his fleet were equally frustrating to the Spanish intended invasion of England. Sir George Carew describes 'the vehementest wind I have seen in my life', and what is remarkable is that in spite of the excessive damage to the flagship and others, no ship was lost.

Donne in his poem does not use the word seasickness, but after describing the Storm he commiserates those 'coffin'd in their cabins' who 'grieved that they are not dead, and yet must die'. Some of the modern criticisms against this Azorean Voyage give the impression that the critics can never have experienced anything more hazardous than a Channel crossing on a fine day. When on a previous occasion (1589) Drake and Norris 'lost more men by sickness than by the sword' it is not specified whether this was seasickness or due to overcrowding and bad feeding. But it is significant that Essex in 1596 insisted upon clean clothes for his soldiers; and when he had one case of infectious illness during the Cadiz voyage, by isolating that one he averted an epidemic. The Queen ignored the precautions, and took the return of her fleet with a clean bill of health as the Almighty's personal favour to herself.

Surgeon-Commander Keevil's *Medicine and the Navy* will probably have been studied by Mr Edgar K. Thompson. The conditions described may make us marvel that so many men were found to face such misery. But the contemporary descriptions do not always differentiate between seasickness and the other numerous ills that were the lot of seamen: so Mr Edgar K. Thompson's intended work will embody a new line of enquiry.

E. M. TENISON

Can research ever produce a solution to this intensely individual complaint? Some are always ill, even when going on board a ship in harbour, others are never ill, and yet others from time to time. I belong to the last-named category but in my case it depends largely on the type of ship, on the shore-going festivities enjoyed just before sailing, and also on the ship's motion, e.g. I do not remember ever being sick with rolling pure and simple but heavy pitching could produce ghastly effects. Again, the type of ship. Large warships such as battle-ships and cruisers did not affect me but I have felt squeamish in a P. and O. and a cross-Channel steamer. I have served in nearly every type of destroyer from 30 knotter to a modern leader in every sort of weather from the North Sea to China and yet suffered very little unless going straight out into a bad gale after a good Christmas. Even then it was only a matter of an hour or two. On the other hand, when in a sloop in China I was liable to feel unwell, chiefly with headache, every time we went to sea and often for days on end. Lastly, after a grand week-end at Dieppe returning in a 50-ton ketch we ran into a strong south-westerly and I had never been so ill in my life.

C. M. BLACKMAN

16. (1960.) NET DEFENCE. On looking through many photographs of the *Majestic* class, I see that the net defence was by no means complete. The foremost boom was below the anchor beds and the after one just abaft the guns of the quarterdeck turret. On completion, the nets were stowed at quarterdeck level (except in the *Mars*) but were later moved to a shelf some eight or ten feet lower.

When the nets were at upper-deck level, the booms lay at an angle of about 35 degrees, but when stowed on the shelf the angle was about 20 degrees with the horizontal.

When the nets were out, the booms were at right angles to the ship's side. T. D. MANNING

Net booms when got out were horizontal and at right angles to the fore-and-aft line of the ship. The heels of the booms were very near the waterline and that of the foremost boom was, roughly, just below the anchor bed, and the after one a little abaft the propellers. There were some eight

or nine booms on each side, perhaps more in the newer *King Edward* class. To get the nets out, there was a monkey boom just before no. 1 net boom, which was got out first for use as an outrigger for the fore guy of the net defence, but I fear I cannot remember its exact location. When the nets were out, the area of defence was approximately from just below the sheet anchor bed to slightly abaft the propellers, the top of the nets being barely visible except near the head of each boom.

The 3-pounder gun mounted on a turret was used for subcalibre practice, elevation being worked by a rod through the turret roof, connected to the turret gun. I fancy we did man this gun at 'Man and arm ship', the elevating rod being, of course, disconnected.

C. M. BLACKMAN

A very full description of this is given in *Torpedoes and Torpedo-vessels* by Lieut G. E. Armstrong, R.N. This was published in 1896 and so covers just the date required. The 'bow defence' and 'stern defence' were only used when at anchor.

R. C. ANDERSON

[Several other readers are thanked for their interesting letters on this subject which must now be considered closed.—Editor.]

18. (1960.) H.M.S. *INCONSTANT*. According to Rupert Jones, the first *Inconstant* had been the French *Pallas*, captured in 1778. Quite early in 1780 she had become the *Convert* and it is possible that there has been some confusion with a later ship. The second *Inconstant* was built in 1783. The French *Inconstante*, captured in 1793, became the British *Convert* and was wrecked in 1794.

'Convert' seems a more polite name than 'Inconstant', but for some reason was never repeated, whereas there have been several more ships called *Inconstant*. The ship of 1783 lasted for a long time and had a good record, but nothing out of the ordinary.

R. C. ANDERSON

Surely inconstancy is a female attribute and therefore suitable as a ship's name?

The name came into the Service in June 1778 when the *Pallas*, 36, was taken from the French and added as the *Inconstant*.

The name was also found in the French navy as the *Inconstante*, 36, was captured off San Domingo by the *Penelope* and *Iphigenia* on 25 November 1793. As we already had the name in the Navy List, this ship was added as the *Convert*.

T. D. MANNING

REVIEWS

THE WORLD'S LIGHTHOUSES BEFORE 1820. By D. ALAN STEVENSON. Oxford University Press. 1959. 9 x 11½ inches; xxiv + 310 pages; fully illustrated. Price 63s. net.

Almost anybody could review or 'notice' this book, but very few indeed could criticize it, for the simple reason that Mr Alan Stevenson is unique in his knowledge of the subject, and no other person could presume to question his authority. Strictures, if any, should therefore be confined to features of the book other than its technical contents. At the outset, then, it must be said that the format of this excellently and luxuriously produced volume may give rise to controversy. The author must expect this, for he claims that the printers and the Press have simply carried out his own ideas, and he alone is responsible for any unorthodox presentation. To begin with, it is printed on 'art' paper to which many people have their rooted objections and prejudices. It is not hard to explain this; there is scarcely a page without illustrations and as these are generally made from half-tone blocks they cannot go on plain paper. The alternative would have been to collect all the pictures and print them on plates (as is done in our own *Journal*), but that is not Mr Stevenson's way. The arrangement is unusual; there are no chapters, but the work is divided

into Parts I, II and III, and subdivided into sections. Part I is a general account, and Part II a fuller account of certain lighthouses. There is necessarily a considerable amount of overlapping, and if the reader wants to know the history of one particular light, say Cordouan, he will have to look in many more than one place. The demand for three separate indexes, 'A', 'B' and 'C', is more apparent to the author than the reader. Why would not one have done for everything? The third of these will tell the searcher where to look for a specific light, but it gives no details; the Eddystone, for example, being referred to in twenty places and the Casquets in twelve, but with no indication as to what page is relevant to which incident. Hence, under Eddystone, one might like to find 'when first lit', 'the earliest tower', and so on. Samuel Pepys was concerned in the matter of lighthouses and appears two or three times in the text, but if an enquirer wants to look him up in the indexes he is frustrated. 'A' deals with different kinds of lights and beacons, technicalities, equipment, illuminants and so on, and is far the best composition, giving sub-references under each heading; for instance under 'Lamps', twelve different kinds each with a separate page number. 'B' contains simply the names of lighthouse technicians, promoters and builders, while 'C' lists only seamarks, actual and reputed. Poor Mr Pepys falls under none of these heads.

The work is comprehensive, international and world-wide as its title proclaims. Here are therefore the achievements of the Egyptians and the Romans, the early Mediterranean lights, and a great deal about the pioneers in France. The reader may wonder why the date 1820 is arbitrarily chosen to terminate the history. Mr Stevenson explains that after that date the builders of rock lighthouses had the advantage of steam vessels to go to and from the land base with men and materials, whereas the last tower to be built before that, the Bell Rock, was dependent on slow and difficult transport under sail and oars.

So far as the British Isles are concerned there was only one light worth mentioning in 1600, but in England there was a sudden development, and by 1690 there were twelve from North Shields to Dungeness, but no more on the south and west coasts except the Lizard and St Agnes in Scilly. The early history of English lights discloses the scandal of racketeering that went on until 1836, when matters were finally regularized. Meanwhile patents for erecting and maintaining lighthouses were frequently issued by the Crown to private individuals who paid an almost nominal rental for the privilege, sometimes amounting to a bribe, and then levied dues on the appropriate shipping and often made a 'packet'.

It need hardly be pointed out that a book as comprehensive as this would contain a good deal about illuminants and illumination, namely the substance lighted, and the means of casting its rays, respectively. The earliest form of night beacon was the basket, chauffer or cresset, burning wood or coal, and gathered by the author under the one term 'grate', which had to be stoked and raked continuously if it was to be of any use to seafarers. Then there were torches and pitch; afterwards the refinement of candles which, for all their feebleness, did give a constant and undimmed light; all kinds of lamps in which all kinds of oil were employed—colza, hake, sperm, seal, hemp, and even turnip! In these, wicks had to be trimmed and glasses cleaned of soot and smoke. Later emerged the reflectors and lenses, gradually becoming more complex and efficient, and involving such terms as paraboloid and ellipsoid.

Although tributes have been paid in the past to the architects and maintainers of lighthouses, Mr Stevenson is of the opinion that seafarers do not sufficiently realize what is owing to the promoters of lights, the designers and makers of apparatus, and above all to the crews of tenders which relieve the keepers and bring supplies to the lights in face of all hardships and dangers.

There can be no two opinions about the usefulness of the book, with its wealth of facts, details and illustrations extending over such a long period of the world's history. Quite apart from these advantages it is pleasing to look upon the work as a sort of memorial to the Stevenson family and a record of its wonderful achievements. Incidentally, Mr D. Alan Stevenson, who is a member of our Society, is not unknown to readers of the *M.M.*, for in 1946 he published a delightful little book (*English Lighthouse Tours, 1801, 1813, 1818*) which was reviewed in these pages. On the present occasion the author, with becoming modesty, skates over the subject of his own distinguished family tree, but what was said of them in that former review will perhaps bear

repetition. The saga begins in the year 1786 when Thomas Smith was the first Engineer of the Northern Lighthouse Board, sometimes referred to as the Scottish Lighthouse Board, and finally established as the Commissioners of Northern Lighthouses. (Careless writers have alluded to these as Northern Lights, as though the Commissioners were responsible for the Aurora Borealis! It is the establishment in Ireland that is known as the Commissioners of Irish Lights, and the titles of the two bodies frequently get mixed, even Mr Stevenson in his Acknowledgements giving the Irish Commissioners incorrectly.) Thomas Smith as a widower married Jean, the widowed mother of Robert Stevenson, who was taken into his step-father's firm; Robert then married Smith's daughter, another Jean, so that 'in-laws' and 'steps' lived happily together. Robert succeeded his father-in-law as Engineer, and his three sons Alan, David and Thomas were also in turn the third, fourth and fifth employed by the Northern Lighthouses as Engineers. Although not within the scope of this book, it is true, that outstanding accomplishment the Skerryvore tower was built by Alan Stevenson, and described as 'the finest example for mass combined with elegance of outline'. It is on a group of rocks nine miles from the nearest land, off Tiree. The group contains the appropriately named Stevenson's Rock. David, who succeeded Alan as Engineer ten years later, was responsible for the well-known Dubh Artach (or Dhu Heartach) light, built on another wave-swept rock of the Atlantic twelve miles from the nearest land, Iona. His son, another David, was sixth in succession as Engineer, and his nephew is the present Alan Stevenson. Thomas was the father of Robert Louis Stevenson. To revert to Robert Stevenson the first: he is said to have been responsible for no fewer than twenty lighthouses, but of course his greatest claim to fame was the building of the Bell Rock tower which took from 1807 till 1811. A large portion of the book under review is given up, and rightly so, to the creation of this masterpiece, a most fascinating and absorbing story which alone makes the book such an interesting possession. A few years later Sir Walter Scott saw the finished achievement and said of its creator that he was 'viceroy over the Commissioners, and a most gentlemanlike and modest man'. Was it this modesty and unassuming character that led to the claim made at a later date by Sir John Rennie, that it was *his* father who had built the Bell Rock lighthouse? This effrontery was matched only by its untruthfulness and presumption, and it is only reasonable and to be expected that Mr Stevenson should devote a six-page Appendix to refuting and demolishing the story. John Rennie, the father, was responsible for designing Waterloo Bridge, London Bridge and Southwark Bridge in the metropolis, as well as the important Plymouth Breakwater, but the suggestion that he had more than the most trifling share in the Bell Rock is completely unfounded.

Mr Alan Stevenson has brought to fruition a monumental work, occupying him off and on for upwards of forty years. Whoever acquires this magnificent and important volume must cherish his possession, and await with what patience he may the publication of the following works promised by Mr Stevenson, and now in preparation: *The Eddystone Lighthouses and Modern Lighthouses: 1820 to 1960*.

H. P. MEAD

THE VERNON PAPERS: Edited by B. McL. RANFT. Navy Records Society. 6 x 9 inches; 600 pages; portrait, maps. Price 45s. to non-members. 25s. to members.

Admiral Edward Vernon (1684-1757) is known to posterity mainly for his introduction of grog into the Navy. In his own day he enjoyed fame from his capture of Porto Bello from the Spaniards in 1739, and notoriety, later, with the Board of Admiralty from the prolixity and obstinacy of his opinions. Mr Ranft's admirable edition of the *Vernon Papers* now in the National Maritime Museum shows him to have been an able and bold strategist, but one who ran himself down in the course of time by the momentum of his own verbosity. In the end, this was disastrously expressed in two pamphlets, *A Specimen of Naked Truth from a British Sailor*, and *Some Seasonable Advice from an Honest Tar* which led to the removal of his name from the list of flag officers. The rest of his life was mostly words, and (possibly, though not certainly), regrets.

Mr Ranft's book fully documents the events of the West Indies Station between 1739 and 1742, with its story of early success not properly followed up, and those of the English Channel in 1745, the year of the Young Pretender's advance into England. It was the job of the Hanoverian navy, at first under Vernon, so to dispose its forces as to prevent successful reinforcement of the Stuart Prince from the Continent. The task was performed successfully by an officer of such obvious capabilities that the reader must feel it more than ever a pity that he did not maintain the reputation of his Service for silence, particularly on questions of detail which, in the long run, did not matter a straw.

OLIVER WARNER

THE MERSEY MISSION TO SEAMEN 1856-1956. By The Rev. MAURICE ROOKE KINGSFORD. Abingdon: The Abbey Press. $5\frac{1}{4} \times 8$ inches; 150 pages with appendix and plates and a reprint of 'A Cruise on the Mersey' written and published by W. H. G. Kingston 1857. Price 9s. 6d. net.

This well-produced book, with thirty-five illustrations and costing only 9s. 6d., contains an account of how The Established Church through The Missions to Seamen has sought to provide for 'the spiritual and moral advancement of our seamen of the Mersey' during the past 100 years. The story of this branch of the Flying Angel Mission centres around a number of fine Christian men who have dedicated themselves to this work and have done it so successfully. It is right that the writer should concentrate on people, for 'a sailor does not remember the Institute but he remembers a man'. 'What live-wires these Mersey chaplains were. Wherever they went something splendid was sure to happen.'

The first part of the book gives an interesting background to the work and mentions among other things the use of 'Arks' or Floating Churches. One of these was ex-H.M.S. *Tees* which was towed from Plymouth to Liverpool by H.M.S. *Pyramus* in 1826 to be converted and used for this purpose. The *Tees* had seen much action, including service under Nelson, having been commanded by Captain Marryat, R.N., the well-known author. The first minister was the famous William Scoresby who had run away to sea as a boy and became an outstanding sea captain and Arctic explorer.

The Mersey Mission was founded by William H. Kingston, Christian philanthropist, writer of boys' books and friend of G. A. Henty and Captain Marryat. Mr Kingsford goes on to chronicle the splendid work of Tom Patrick, Charles Maxwell Woosnam, Edgar Lambert, Archdeacon Hobson, Lord Thurlow, J. R. Weller, Canon George William Evans and others, who played a part in this story.

The methods employed by The Mission have been first to visit the ships anchored in the Mersey, and then to provide a 'home from home' in the society's Institutes wherein men could find 'Recreation, Refreshment and Religion' in the best sense of these words. Down the years, and particularly in war-time, a magnificent ministry has been carried on, while a number of buildings have been erected to house the work. The climax of 100 years of effort has been the building of a new commodious up-to-date Club (Kingston House) on a central site in James Street, Liverpool. This has been done as a mark of deep gratitude for all that our Merchant Seamen did in the war years.

At the end of the book there is reprinted an interesting account written by the founder, W. H. G. Kingston in 1857, of a Day's Cruise on the Mersey visiting various ships in the day-to-day work of the Society. This same loving care for the moral and spiritual well-being of sailors has gone on ever since and has done an immense amount of good.

J. J. CRESSWELL

THE NEW MAYFLOWER. HER DESIGN AND CONSTRUCTION. By WILLIAM A. BAKER. Barre Gazette, Barre, Massachusetts. 1958. 6×9 inches; 142 pages; 8 plates, diagrams, appendices; and 4 folding plans in pocket. Price \$8.00.

The story of the voyage of the Pilgrim Fathers in 1620 is too well known to require any comment in these pages, while the lively and satisfying account of the crossing of the second *Mayflower* given by Mr Allan Villiers at the Annual Lecture in 1957 will still be fresh in the minds of many members. Perhaps for the same reasons, the book under review has little to say of the two voyages, but is confined to an account of the conception, design, and building of *Mayflower II* herself, with a comprehensive survey of the available data from which the new ship was built.

In one way at least, the lack of recorded information about the *Mayflower* and other famous vessels has proved to have some compensations; since the intense modern interest in these ships has promoted a more energetic general research into the details of early vessels than would have been the case if full details of these particular ships had been preserved. The *Mayflower II* is the latest result of such an inquiry and in her designer Mr William Baker (of the Bethlehem-Quincy Shipbuilding Yard) we find that happy combination of antiquary and naval architect, doubly blessed by the opportunity of seeing the result of his labours proved in the best possible of Testing Tanks, the Western Ocean.

The present book is largely based on Mr Baker's earlier articles on the *Mayflower* published in the *American Neptune* for January and October 1954 and October 1955. A further article on the Pilgrims' 'Shallop' in April 1957 is not included. The plans, including new sail and arrangement plans, have been redrawn and are much more useful to the model-maker than the original plates, but the serious student will probably find more details of technical interest in the hull lines printed in the *Neptune*. Mr Baker's explanation of his design is of the utmost importance, in that he has placed before the reader a *résumé*—of necessity limited by the space available—of all the evidence available to reconstruct a ship of the date and style of the first *Mayflower*, including material of earlier date which has any bearing on the methods of construction and design in use in the early 1600's. The correctness of this manner of approach cannot be over-emphasized: contemporary methods of drafting have been followed, and as far as possible chapter and verse is given for every line in the draught and for the dimensions chosen for the new ship: few points are glossed over or given as a flat statement of fact. Mr Baker acknowledges that fresh evidence will still be forthcoming, and he would be the last to deny that his design will never be improved upon, but it is certain that such improvements will be the result of new evidence rather than of alternative interpretations of the old. Except for the excessive height between decks (not within the control of Mr Baker), to be mentioned later, very little fault can be found with *Mayflower II*, and it is hoped that any criticism by the reviewer may be accepted as being constructive and not destructive in intent.

Some important new evidence is already to hand, in the form of the anonymous *Treatise on Shipbuilding* recently published by the Society for Nautical Research. This work is essential to any study of early Stuart vessels, but unfortunately it was published too late to be of use. Mr Baker has, however, made full use of the *Fragments of Ancient English Shipwrightry*, preserved in the Pepysian Library and attributed to his namesake, Matthew Baker. The *Fragments* probably dates from as much before the date assumed for the *Mayflower* (1606) as the *Treatise* is later, and has very properly been used as the main source from which the details of the new design have been drawn. Mr Baker is probably correct in thinking that the *Fragments* was written over a period of time; the work is certainly disjointed, and many of the notes have been added—and at least one of the diagrams altered—after Matthew Baker's death. Its date is very uncertain, and although a reference to the *Vanguard* has been taken as dating the work to 1586, this, as with other similar notes, merely proves that the notes in question were made after the various ships were built. It is unlikely that any notes were added by Matthew Baker after 1600, but the work as a whole

deserves a critical study to resolve the many ambiguities and uncertainties in text and diagrams.

Mr Baker has followed most of his predecessors in accepting the burthen of the first *Mayflower* as being 180 tons, and this is supported by the number of the crew as given by him—25 to 30 men. The same paper which contains the so-called tonnage rule of 1582 (S.P. 12/152; 19) gives a 'Proportion' for merchant ships which allows one man for each 5 tons burthen in normal circumstances, but which might be as low as one man to each 6 tons, and these same proportions are found in East India ships for long afterwards. It is unlikely that the *Mayflower* was more strongly manned than an Indiaman, therefore her crew would be sufficient for a ship of 150 to 180 tons. Whilst, however, Mr Baker is correct in noting that the *Adventure* of 1626 was probably a new and unusual ship, it is doubtful if his preference for the relative dimensions of the *Crane* of 1590 is any better founded. This ship and her contemporaries, *Advantage* (by Pett) and *Answer* (by Baker) were all three ordered by contract to be 60 feet keel and 25 feet beam (S.P. 12/224; 83 and Cott. MSS. Otho E VII). All three were in fact built to different dimensions and proportions, as shown in Mr Baker's tables. Also, all three—together with Baker's *Qyittance*—were first ordered to be Cromsters, but may later have been completed as ships. Taking everything into consideration, it is doubtful whether the proportions of any of these vessels were intended to be typical of those of any merchant ship.

Dimensions of early merchant ships are so few that it may be useful to note the following examples measured by Trinity House in 1627 during the Tonnage dispute (S.P. 16/57; 42). Some of the ships were colliers, and some were certainly not newly built.

Ship and Master	Length of keel ft. in.	Breadth outside plank ft. in.	Draught of water ft. in.	Port above water when laden ft. in.
<i>Hope</i> , John Burwood	73 0	28 3	14 4	6 0
<i>John Bonaventure</i> ,* William Dryver	76 0	29 3	15 3	—
<i>William and Ralph</i> , Thos. Trenchfield	75 0	29 10	15 10	5 0
<i>Sampson</i> , Wm. Rainborow	93 0	35 7	17 8	5 4
<i>Eagle</i> , William Ellis	85 10	31 10	17 0	5 6
<i>Tiger</i> , Mr Ellis	70 0	27 6	13 0	5 0
<i>Exchange</i> ,† John Blake	70 0	26 0	13 6	4 6
<i>Unicorn</i>	62 0	25 8	13 0	—
<i>Hopewell</i>	61 0	25 6	—	—
<i>Peter and Andrew</i>	75 0	29 0	15 0	—
<i>Clement and Jobe</i>	70 0	29 0	15 0	—

* The *John Bonaventure* hath carried in cask 300 tons being 12 foot under the beam.

† *Exchange*: her breadth was 3 inches under water. 'We find that these ships abovesaid, as also all other ships in general, do lade the diameter of their breadth to the water, and many under water.'

And likewise, that their draught of water is more than the half of their breadth.'

The midship frame chosen by Mr Baker is convincing, and it is highly probable that a merchant ship would have only two arcs below the breadth rather than the attenuated form produced by

the normal three arcs of naval ships. The writer is, however, less happy about a floor of only $\frac{1}{2}$ the beam. The author of the *Treatise* wrote that 'Merchants covet to have great floors', and this as certainly true for long afterwards and probably earlier also. His note referred to the thwartship extent of the floor timber. During the Tonnage dispute of 1626-7, however, the comments of the various parties regarding 'great' or 'small', and 'long' or 'short' floors, were evidently made with reference to the extent of the floor fore and aft, and the 'large bilges' of the *Adventure* are likely to refer to the radius of the floor sweep rather than to the width of the flat of the floor. All these statements were used relatively in speaking of the practice before 1626, and I should hesitate to use a floor of less than $\frac{1}{4}$ the beam in any merchant ship meant to be a 'burthensome carrier', the description used later by Mr Baker. It should be noted that several errors occur in the quotations from the State Papers printed in Oppenheim's *Administration of the Royal Navy*, and it is advisable to refer to the originals.

There is no doubt but that the frames in the fore and after bodies were obtained from the midship frame by the process later known as 'whole moulding', or in the early 1600's as the 'haling down of the frame', and although Mr Baker does not specifically refer to these terms it is clear from his plans that he has in fact followed this system. The *Treatise on Shipbuilding* gives by far the best account of this process, which consisted basically of retaining the radii of the sweeps of the midship frame, but then altering the position of their centres in the frames fore and aft according to the rising and narrowing lines of the sheer and floor plans. It is important to realize that the narrowing line of the floor did not necessarily represent the half breadth of the floor at any frame. In fact, it shows the *difference* between the half breadth of the floor in midships and that at any particular frame fore and aft. If this difference exceeds the half breadth of the floor in midships, as measured in the body plan, the centre of the floor sweep at that point will lie on the far side of the middle line. Mr Baker is therefore mistaken in assuming, because in one diagram given in the *Fragnents* the centre of the floor sweep fell on the middle line in both the frame at the touch and that midway between the sternpost and midships, that no further narrowing was possible, and that forward and aft of those frames the radius of the floor sweep was gradually reduced to nil. During the sixteenth century the narrowing line always ran from the gripe to the tuck, although in the second half of the period it was always identical with the true half breadth of the floor.

In common with all mechanical systems for 'fairing' the lines of the body, whole moulding was only satisfactory for the frames in the main body of the ship, and the system was of necessity modified at the bow and stern where it became impossible to use the same radii as in midships. No contemporary writer ever attempted to explain how such modification was actually carried out, and all were content to end their half breadth, or narrowing lines, on the centre line instead of at the side of stem and sternposts. In the days before the use of waterlines and diagonals to fair the design, and a better knowledge of applied geometry on the mould loft floor, a great part of the actual fairing must have been left to the shipwright. As the frames were raised he would secure them by battens which followed approximately the line of the later diagonals. Then, in trimming out the rabbets and dubbing the frame fair, he would complete any fairing of the lines which was not at that time possible on the draught or in the mould loft. Mr Baker very rightly lays stress on the 'local bumps' which appear in these early designs when proved by modern methods, but it is certain that many of these would in fact disappear under the Shipwright's adze. It would be interesting to hear whether Messrs Uphams of Brixham, who built *Mayflower II*, had any comments in this connexion, as some modifications do seem to have been made in the ship during building. In particular, a small hollow has been worked in the heels of the fashion pieces where they meet the sternpost, although the plans show a sharp angle at this point.

Mr Baker has used a single arc to describe the rising line of the floor from stem to stern. This is certainly indicated in one diagram in the *Fragnents* (though not in the one reproduced in the present book) but has a very decided disadvantage in that it makes the relative heights of the tuck and gripe, and the position of the midship frame on the keel, mutually dependent. The designer could therefore exercise little judgment—if he moved one of these three points, he would be

forced to move a second also. In most of the draughts the rising line aft is quicker, and has a slightly shorter radius, than that forward of midships. This is the case in the draught reproduced by Mr Baker, in which, however, it should be noted that although the midship frame shows some dead rising, the rising line does not.

The above comments refer only to details of design and old time practice, and in fact would make very little practical difference in the finished ship. The interior arrangements of the new *Mayflower* are, however, another matter. We are told that the decision to make the height between decks 7 feet was made principally with the convenience of sightseers in mind. This reason seems both insufficient and, to this writer at least, incredible. If the same trend of thought has been consistently followed in the parallel reconstruction ashore of the original village, the net results should be quite entertaining. This height between decks was not Mr Baker's decision, and he has had—as a Naval Architect—to make the best of it, although there is very little doubt but that it is approximately 3 feet too high. A large number of examples of merchant ships under 200 tons built in the 1670's had heights between decks ranging from 3 feet 8 inches to 4 feet 10 inches, and guns were fought in this space (Add. MSS. 22183). Mr Baker does not say what effect the height of 7 feet has had upon his original design, but it is obvious that either the lower deck is too low, or the upper too high, or both. If the upper deck (and the decks above) is too high, the whole profile of the upperworks must necessarily be out of proportion, and the vessel would look top heavy even in the eyes of the Pilgrims. If, however, the lower deck is laid too low, then the gun ports and other fittings dependent upon it must also be too low in relation to the water line and topside.

On the whole, I think the latter is the case. The first *Mayflower* would carry about 180 tons in cask, the equivalent of at least 180 tons in weight, as cargo. She would probably do this quite comfortably, since the contemporary rule would allow for her to measure 240 tons and tonnage, or deadweight, and in this condition would certainly carry her ports high enough from the water to allow her to fight her guns in normal circumstances. (In 1626 the minimum height of the ports in merchantships hired by the Crown was settled at 4 feet.) *Mayflower II* carried 133 tons of ballast, 10 tons water, and 20 tons of cargo, according to her Master's account. This total of only 163 tons, plus of course crew and stores, put her down to her marks with her ports a bare 2 feet above the water, and I think it fair to assume that the ports should therefore be at least 2 feet higher than designed or built. It might also be possible to infer from the actual weight carried that the block coefficient of *Mayflower II* is rather less than that of normal ships built when the early rules were framed.

In *Mayflower II* the cables are worked between decks, and hove in by a windlass. Owing to the exceptional headroom it is possible to ship a 4-foot handspike, but it is difficult to imagine what might happen if the deck head were to be lowered 2 or 3 feet to its normal height. There is in fact no evidence that the old style windlass was ever fitted below a deck. The relative position of the hawseholes means nothing, as the upper deck often had a fall forward and the cable was led upwards and aft to the windlass from the hawseholes. After about 1700 examples are found of the upper deck running flush, but curving downward at its forward end so as to make a rather unusual manger. Probably the first *Mayflower* would carry a windlass, but if so it would probably be placed at the forward end of the waist in the conventional position, and she would have no need for a double capstan.

The remarks on masting are valuable in that they are based on material not previously published. Mr Villiers has said that he thought the lower masts were rather slender, but the dimensions chosen by Mr Baker are borne out by the sizes of masts actually fitted in merchant vessels. In 1676 a mainmast of 72 feet was 19 $\frac{1}{4}$ inches in diameter and had a 55-foot mainyard. Five years later, an 86-foot mast was 26 inches, a 77-foot mast was 22 inches, and a 76-foot mast was 16 'hands', or about 21 inches, in diameter (Add. MSS. 22184).

The position of the mizzenmast is difficult, but it was certainly influenced by the position of the whipstaff and tiller. It would certainly be preferable to place the mast forward of the whipstaff, where it could be stepped in hold or have its step supported by a stantion below the lower deck, but (as with the *Bonaventure*) a light mizzen mast without top or topmast may for long have

been stepped on the upper deck so far aft that the tiller prevented any support being given to its step. Incidentally, the only typographical error in the book occurs on p. 107, where Matthew Baker's topsail yards are said to be *two* thirds the length of their lower yards. The tables on the same page make it clear that *one* third is meant.

The actual rigging is treated comparatively briefly, but a detailed list and an excellent rigging plan tell the reader all he will require to know. It is probably a mistake to hook the strops of the topmast deadeyes into the puttock plates—the reverse was the usual practice. Mr Baker also leads the falls of the martnets of his courses to the topmast head, and stresses the importance of a high lead when he remarks that topsail martnets could be fitted only when topgallant masts were carried. This ignores the fact that the lead could be to the sail's own masthead; the lead was not all important, since at that date *all* yards were lowered when taking in their respective sails, and the yard and sail automatically fell into the martnets. However, in 1620 the higher lead was permissible, and this certainly made Mr Villiers's task much easier in 1957. In other ways, however, simplicity is not so desirable, and it is somewhat disconcerting to read that in the reconstruction various blocks were seized in rather than spliced, and deadeyes turned in without throat seizings, merely for fear of stretching and to save labour. Of all the branches of seamanship, ropes and the art of handling them have probably changed least in the last 350 years, and one would think that such an example of parish rigging would be a quite unnecessary anachronism.

Finally, we must accept as inevitable the fact that the framing and structure of *Mayflower II* follows modern, rather than Tudor or Stuart practice. Mr Baker's warning that it would have been impracticable to specify scantlings as large as those used in 1600 deserves particular attention from those who may be placed in the position of deciding the fate of any old wooden hull which may survive. Photographs and plans may be of prime importance, but for practical reasons it would now be easier to obtain the materials for building a replica of a cathedral or castle than those required to build a ship of the line.

Mr Baker deserves the thanks of all those interested in early ships for having produced, first, a most satisfactory and seamanlike replica of the *Mayflower*; and secondly, a record of original research which will be of permanent value.

W. SALISBURY

THE NORTHERN SEAS SHIPPING AND COMMERCE IN NORTHERN EUROPE A.D. 300-1100. By ARCHIBALD R. LEWIS. Princeton, New Jersey: Princeton University Press. 1958. $9\frac{1}{2} \times 6\frac{1}{2}$ inches; 498 pages. \$9.00.

This book is no doubt one of the most significant contributions to our knowledge of the sea and its influence on the development of history that has been published for many years. It ranks with William Fairburn's *Merchant Sail* for scholarly research, introduction of new material, and for its wealth of detail on a period of which we have very little knowledge of maritime affairs. It is a most welcome relief from the current tide of rehashes of the sea lore of the ancients and of Europe from the eleventh to the seventeenth centuries, all of which merely rearrange historical facts and narratives and contribute nothing to the work of the authors from which they borrowed. Professor Lewis, Chairman of the Department of History at the University of Texas, has on the contrary delved deeply into the sources of general history covering the period of which he writes, extracting facts and figures which, combined with his undoubtedly outstanding knowledge of those centuries, make an unusually enlightening story of the maritime affairs of the countries that border the North Atlantic, the Bay of Biscay, the Irish Sea, the English Channel, the North Sea, and the Baltic. Not only has Professor Lewis been able to reveal the economic, political and military factors which combined with geographic considerations led the merchants and traders to take to the sea to transport their goods, he has enriched his book with a great deal of detail in regard to the ships and craft they used, their problems of seamanship and navigation, customs finance, monetary problems and most of the other factors associated with maritime commerce. The net result is to reveal this period of history as being not quite the 'dark age' that it is generally assumed to be.

This book is not easy to read. I do not mean that it is dull and colourless—rather it is so cram-packed with information, most of which suggests entirely new areas of study, that the reader will find himself carefully assimilating every page with frequent reference to the footnotes. For me at least the author has accomplished what his preface says was his intention—‘to combine, integrate and re-examine the history of the Northern Seas during these centuries (to) stimulate and provoke further investigation and hypothesis’.

In eight chapters Professor Lewis reviews Northern Europe as it was in the fourth century when Rome’s hold on the entire area was beginning to crumble. From there he carries his study through the period of barbaric invasions, the new beginnings after the fall of Rome, the period of the Vikings, Anglo-Saxon England, the fortress cities of Europe, the Danish Sea Empire of the late tenth and early eleventh centuries to the beginnings of Europe as we know it now, commencing around the year 1100. In each period he reviews carefully the general history of each country (or tribe), follows with a review of the economic conditions existing at the time, the trade relations between the peoples concerned, and his interpretation of the trade routes along the coastal waters or across the seas to accomplish the exchange of goods so vital in the evolution of the people of Northern Europe. The author does not attempt to generalize, in fact he carefully emphasizes that rather than a series of simple changes each the result of a single cause, the lands around the Northern Seas ‘had an involved history of many complex and varied forces’. He concludes that the growth was slow, the result of the contributions of many peoples, and, rather than uniform and orderly, the growth was characterized by periods of no activity and actual decline at times. However, the declines failed to halt the general progress and the hope that exists always in the hearts of men, and the net result was a world more advanced than the Roman frontier from which it had sprung.

Professor Lewis’s apology for not including a bibliography is not necessary. His index is excellent and use of it in connexion with the footnotes will provide more than enough references for all but the most advanced scholars. The acknowledgements in the preface, plus the more than 2000 footnotes, are evidence of the years of work that have obviously been put into this work. It is a welcome addition to his previous volume *Naval Power and Trade in the Mediterranean—A.D. 500-1100*. Both belong on the shelves of every library of the sea alongside Hakluyt, Purchas, Froude and the volumes of the Navy Records Society and the Hakluyt Society.

GEORGE D. M. CUNHA

THE CONVICT SHIPS, 1787-1868. By CHARLES BATESON. Darnley Street, Glasgow: Brown Son and Ferguson Ltd. $9 \times 6\frac{3}{4}$ inches; 355 pages; 20 illustrations; appendix; index. Price 36s. net.

Convict ships. The very name conjures up visions of dark and horrible dungeons, clanking leg irons and hideous cruelties of every description. But so little has been written about the ships which from 1788 to 1868 carried convicts from the British Isles to Australia and Tasmania, that this book opens up an entirely new field of maritime history.

The beastliness and cruelty that one had imagined is all there, and in these pages one has these things set out in full detail. Ship by ship, voyage by voyage, floggings of men and women, filth and disease, cold and starvation, murder and mutiny, and every conceivable horror. Nothing is exaggerated, nothing hidden. That all ships and all masters were not equally bad must be admitted. Among the ships were a few well-found, and commanded by humane and honest men who treated the wretched creatures under their charge with leniency, and saw that some semblance of decency and cleanliness was observed in their prison quarters. Such ships and officers were, alas, pitifully few. Nothing can be said in favour of the many, and still less in favour of the brutish magistrates and judges who condemned these poor wretches to such a shocking fate, and often for offences that would now be punishable by a fine, or at most by a short term of imprisonment. The really

bad criminals, murderers, robbers, coiners and so on never got to the convict ships, they were hanged out of hand in the county gaols.

From authoritative sources the author describes not only the ships and voyages themselves, but also the administrative system under which ships were selected, provisioned, manned and despatched on the 13,000-mile voyage to the Antipodes. He describes the duties of various officers, the conditions under which convicts and their guards lived, and the fearful toll of disease and death taken by over-crowding and ill treatment.

A portion of the book is devoted to the more remarkable voyages from the First Fleet in 1788 to the *Hougoumont*, the last convict ship to Western Australia in 1868. It is an extraordinary, not to say a shocking, record of plot and robbery, mutiny, shipwreck and disaster.

Never in history were a country's beginnings laid by such unhappy and unsuitable pioneers as the 759 convicts of Australia's First Fleet, and the thousands of prisoners who followed them into unwanted exile. Yet time has proved that the bewildered wretches, men, women and children were people of destiny and makers of history.

There is a tendency of recent years to ignore Australia's convict origin and to minimize the part played by the prisoners in the country's early development, but such an attitude distorts the facts. Not until many years after the arrival of the First Fleet in 1788 did Australia's essential character of a penal settlement change.

The first influx of free immigrants did not occur till the 1820's, and then it was a mere trickle. The last convict arrived in 1868, almost within living memory.

The plain truth is that Australia was pioneered during the first thirty years of its existence as a British Colony *solely* by those who had left their country for their country's good.

The first penal settlement in Australia was established by Captain Arthur Phillips, R.N., at Port Jackson in 1788. The last convict ship discharged her human freight at Swan River, Western Australia, in 1868. During that span of eighty years 160,663 male and female prisoners were landed in Australia from the United Kingdom.

The history of the conveyance of these prisoners is full of the drama of human suffering and of human endeavour. The number of convicts embarked was substantially greater than the number landed at their destinations. Deaths from scurvy, dysentery, typhus and typhoid fevers, smallpox and other diseases were commonplace, especially during the earlier years of transportation, and effective measures to combat them were introduced but tardily. For long little or nothing was done to ensure that the men and women embarked were fit to withstand the hardships of a protracted voyage in severe climates and bad weather in small over-crowded ships. Medical examination, if any, was a useless formality. The magistrates, gaolers, hulk officials, and departmental heads were less concerned with the welfare of prisoners on passage than with ridding the gaols and prison hulks of as many of their inmates as was possible to make room for more. The result was that many prisoners having already spent many months in filthy fever-ridden gaols and hulks, were embarked in a sickly emaciated state and often enough suffering from infections or contagious disease. Cases occurred of men and women over 80 years of age in sick and feeble condition being embarked. They, of course, died, and were meant to die, in a matter of weeks. When thrown into the dark dank prison 'tween-decks, and for the most part handcuffed and leg-ironed, the wonder is that so many of the prisoners survived at all.

Provisions it must be admitted were generally as good as those commonly issued to seamen at that time, but owing to the corruption existing among the people who had the duty of issuing the rations, and that often included the Captain and officers, the poor prisoners got very much less than their due. The surplus was of course, sold in Sydney for the benefit of the rogues in the after cabin.

Regulations were laid down for the proper fumigating, cleaning, and airing of the prison quarters, and for the prisoners to be allowed on deck daily for fresh air and exercise; but these precautions were commonly neglected due to the ignorance and inefficiency, or just laziness, on the part of the officers.

The worst defect in the organization was the absence, until a comparatively late date, of any effective supervision during the voyage. The ship owners from whom the transports were chartered

were not obliged to furnish an approved surgeon. Surgeons of sorts were embarked in some of the ships, but no real attempt was made to investigate either the qualifications or characters of these surgeons.

In 1801 the system of Surgeon Superintendants was introduced by the Transport Commission, and this on the whole did produce a notable improvement in the treatment of prisoners generally, though some of the superintendants were men of very low moral fibre.

Of the ships themselves—all hired by contract—it is a common belief that they were mostly, if not all, rotten leaky old tubs, unseaworthy and unfit for human habitation; and in some cases, particularly in the early days of transportation, it must be admitted that the description was not inapt.

By the terms of the contracts, however, all ships taken over for the Convict Service had to undergo a thorough survey, and to be certified not alone as seaworthy, but as suitable in every way for the transport of prisoners during the long voyage, often lasting 6 months, to Australia or Tasmania.

That these conditions were observed in the majority of cases is shown by the relatively few deaths which occurred at sea during the long period of eighty years.

In a few ships the death roll from scurvy, dysentery and typhus was very high indeed, and the surviving prisoners when landed in Australia were in a pitiable condition; but, on the other hand, some voyages were made without a single death occurring which could in any way be attributed to bad living conditions or ill treatment on board the ship.

The Convict Ships is profusely illustrated by plates. The appendices are altogether admirable, and the Index could hardly be bettered. This is a work of permanent historic value, and should be in every nautical library.

A. MACDERMOTT

SEAPORTS SOUTH OF SAHARA. By ROBERT G. ALBION. New York: Appleton-Century-Crofts, Inc. $9\frac{1}{2} \times 6\frac{1}{2}$ inches; 316 pages. Price. \$6.00.

The book is about American maritime relations with South, East and West Africa, mainly during this century, and it is particularly the story of the Farrell Line of steamships. This trade with Africa in American ships has increased at a greater rate than that of any other American sea enterprise. Like several old established shipping companies on this side of the Atlantic, the Farrell Line is a family concern, a somewhat unusual feature in the U.S.A.

The author has been Gardiner Professor of Oceanic History and Affairs at Harvard University since 1949, and is thus well versed in the subject. He was one of the first Americans to be made an honorary life member of the Society for Nautical Research. Among his writings are the books: *Forests and Sea Power*, *Square-Riggers on Schedule*, *The Rise of New York Port*, and *Sea Lanes in Wartime*.

Professor Albion tells of the early great days of American ships and seamen, and then of the country's withdrawal from the sea between the Civil War and World War I, with the gradual relinquishing by American shipping of its once important position on the ocean routes. During the latter period much of the world trade of the United States was carried in foreign ships. The advent of World War I, with its immediate stoppage of German oversea trade, and with British shipping otherwise occupied, gave America a great commercial opportunity of which she could not take full advantage because of her lack of ocean-going ships. To quote the author, 'American complacency with its dependence upon foreign shipping came to an abrupt end with World War I'. The country soon set about putting right this state of affairs; this book is largely the account of the African part of American export trade since 1914. From that year there has been great and rapid increase of trade direct to Africa in American ships.

During World War I much cargo to South and East Africa from the U.S.A. was of necessity in square-rigged ships and schooners. It is interesting to note that many wooden sailing vessels were built for this trade at that time, all of which were scrapped by the mid-1920's. Between the

two World Wars regular sailings by the American-South African Line steamers started and the Farrell family took over management of it in 1925.

There are descriptions of the principal African ports and their trade. It seems rather a pity that the book contains no plans of these ports. Trade statistics occupy a good deal of the book, and the author must have done a great amount of research in collecting the material. Mention is made of political influence and government subsidies, freight 'wars', rate cutting to exhaust the resources of competitors, and some of the other less desirable features of 'big business' and tricks of the trade.

America's tremendous effort in shipbuilding during the 1939-45 war is shown by the figure of 5777 vessels built, including 2708 Liberty ships and 414 Victory ships. The first two Liberty ships were ready for sea in December 1941.

Farrell's ships suffered many casualties during the war, but had very few in peace time. In connexion with the stranding of the only Farrell ship to be lost in peace time, the author dryly remarks that 'all sound cargo was discharged; so, too, was the Captain'. He also records a case of most unusual routing during the war; a ship bound from New York to Beira, Portuguese East Africa, being sent via the Panama canal, the West coast of South America, and the Strait of Magellan!

Mention is made of the important part played by the United States government in building up the American-African trade by its policy of subsidizing the shipping services on what are considered to be 'essential trade routes'. Farrell's alone received government aid to the tune of seventy million dollars! These subsidies, both for building and running, enabled American ships to compete successfully with the cargo ships of other nations.

Pictures of fourteen of the ships are included, and there are notes and photographs of the company's senior personnel, both ashore and afloat. There are nine appendices, mainly of trade statistics. Numbered 'footnotes' in the text run to 666; these notes are tabulated together at the end of the book and they occupy 23 pages. End maps show Africa South of the Sahara with the main ports and railways. The book has an attractive dust cover: a coloured picture of one of the big American freighters at an African harbour.

C. H. WILLIAMS

DAS WAPPEN VON HAMBURG I. By R. HOECKEL and FR. JORBERG R. LOEF. 1958 (obtainable from Francis Edwards Ltd.). $9\frac{1}{2} \times 7$ inches; 44 pages; 10 plates; 4 folding plans. Price 25s.

Eleven years ago, in an article mainly concerned with the large model of the third *Wappen von Hamburg*, then in the United Service Institution, I reproduced a stern view of the first ship of that name from a set of plans made by Mr Hoeckel for a model. Now, some years after his death, the full set of plans are available. A model-maker will find all he can possibly need; lines, rigging-plan, details inboard and out, decoration, even a plan showing where to make everything fast.

Somehow the photograph of the model suggests a date rather later than that of the original ship, 1667, and the dimensions are almost certainly too small. We know those of the next ship of the name, built in 1686, and we know that the number of guns, 54, was the same in each case. On p. 15 we are told that 'one can certainly assume that the three ships (including the *Leopoldus I*) had much the same appearance and the same dimensions', but we find that Hoeckel's figures and his plans, if on 1/100 as we are told, give a ship about 10% smaller in each direction. It is true that use of the scale shown on the drawings (9 mm. to 1 m.) would bring the ship up to the dimensions of 1686, but this would be very confusing for the model-maker working with a rule marked in centimetres.

The text, by Mr Jorberg, is not so much concerned with the first *Wappen von Hamburg* as with her successor, for the very good reason that hardly anything is known about the first and a good deal about the second; we have, for instance, the contract and specification for her building printed in full. We are also given good reproductions of contemporary portraits of the two ships

and of the prints from which they are said to have been 'cribbed'. Here Mr Jorberg is perhaps a little over critical. The poses of the ships and the arrangement of the sails do indeed remind one of one of Hollar's prints and of the well-known portrait of Tromp's *Aemilia*, but in sterns and quarter-galleries, the essential features for recognition, they are quite different. It may, by the way, be said to be a fault in the arrangement of the plates, that in each case where a comparison has to be made the reproductions are back to back instead of facing one another.

One plate taken from a contemporary oil-painting shows both the first *Wappen von Hamburg* and her sister the *Leopoldus I*. This shows no sign of having been 'cribbed' from anywhere and confirms the evidence of the print of the same two ships. The remaining four plates show a painting by Storck, two drawings by Van de Velde of the *Old James* and *Zeven Provincien* and a modern model of this last ship. The connexion of these with the matter in hand is not very clear.

R. C. ANDERSON

SCEPTRE. By HUGH SOMERVILLE. London: Cassell. $7\frac{1}{2} \times 4\frac{1}{2}$ inches; 185 pages of photographs, drawings, etc. Price 21s.

This is a workman-like account of *Sceptre*'s story as the seventeenth challenger for the America's Cup. It starts with the history of the Cup and of the earlier challenges and challengers and, in most readable English, describes those large yachts in such a way that one really does want to be a nineteenth-century millionaire.

The book is divided into sections, each one describing a different phase of the subject which seems a good way of covering such a subject where the material is of such a wide diversity. The section subsequent to the historical one mentioned above deals with the reduction in size of the America's Cup yachts from the J Class to the 12 Metres and gives the reasons and mechanisms for accomplishing it. It also gives the detailed conditions which governed the seventeenth challenge in full, which is the only part of the book I found a bit tedious, probably because I have no great experience of yacht racing or any prospect of even being in a syndicate to finance a challenger.

The method of choosing the challenger by tank tests is also described with some technicalities which, like all of these in yachting, were so cryptically expressed that they conveyed no real meaning. This, however, is no unique fault in the author because such a competent yacht designer as the late Harrison Butler could publish a book in 1949 with a widely erroneous explanation of how a yacht sails to windward. The knowledge of yacht hull and sail performance exists, but most of it is still being kept secret. However, it appears that the tank tests were merely used to find the best of eight designs by four of the British designers who had most experience of the type. They were not used as an instrument to help the evolution of the best possible model.

The building and tuning up of the challenger show the care and competence of the craftsmen in making this beautiful yacht and the realistic way in which the trials against *Evaine* were conducted to find out the values of the sails and give practice and competence to the helmsman and crew. The *Evaine* trials have come in for much criticism, but they were reasonable, even if they were not such a keen testing as *Columbia*, the defender, had to go through to be selected to defend the Cup against her three rivals, *Vim*, *Weatherly* and *Easterner*.

The actual races for the America's Cup are described in all the buoy-to-buoy details one could wish and show that on all courses and strengths of wind, *Sceptre* was the slower boat with the possible exception of a run with the Herbulot spinakers set.

The seventeenth challenge by *Sceptre* for the America's Cup was a private venture by a syndicate from the Royal Yacht Squadron of twelve members under the chairmanship of Hugh Goodson in fact. But, in practice, it was a sporting challenge by Britain to America and both Britain and the R.Y.S. syndicate have taken her defeat in good humour but with, one hopes, a determination to 'bring back the "Mug"' some day. Anyway, as readers of this book will discover, everything which seemed reasonable to the syndicate as well as most competent opinion

was done to ensure success. The boat was well built; the crew under Graham Mann was well selected and trained; the sails were good.

The appendices, maps, drawings and especially the photographs make this a most agreeable book to read as a record of the seventeenth challenge for the Cup by *Sceptre*.

OHN MORWOOD

ARCHITECTURA NAVALIS MERCATORIA (1768). By F. H. CHAPMAN. New edition 1957, published by R. Loef, Burg b. Magdeburg; distributed in England by Francis Edwards, Ltd. $13 \times 8\frac{1}{2}$ inches; 62 plates with tables and introductions. Price £3. 10s.

To quote from a review written just 20 years ago: 'Chapman's great atlas of plates is probably the finest thing of its kind ever produced, but there are three obstacles to its general use; it is very large, very rare and very expensive.' This was written on the appearance of the first instalment of a series of half-size reproductions of the original plans produced by the same publisher as the present volume. Both stock and plates were destroyed in the war and we now have the plans on a slightly smaller scale, roughly three-sevenths of the originals, but still perfectly legible. Certainly one could make a model from any one of them without any difficulty, and since the original now commands a price well into three figures and involves finding room for a book nearly 2 ft. high, this smaller and comparatively cheap edition ought to find a ready market.

One small mistake in the first of the two introductory essays ought to be mentioned. The figures for the equivalents in the metric system of French and English feet have been transposed; the French foot is really the larger by 20 mm.

R. C. ANDERSON

EN BOK OM SKEPPET WASA. By GEORG HAFSTRÖM. Stockholm, 1959. 10×7 inches; 200 pages. Price Kr. 30 (c. 41s.).

WASA-FYND OCH BÄRGNING. By EDWARD CLASON and ANDERS FRANZEN. Stockholm, 1959. $11 \times 8\frac{1}{2}$ inches; 64 pages. Price Kr. 13.50 (c. 18s. 6d.).

Two Notes on the discovery almost in the city of Stockholm of the ship *Wasa* sunk on her first attempt to put to sea in 1628 have been contributed to the *M.M.* by Captain Svensson in February 1958 and February 1960, the last detailing the progress made during 1959 in the work of shifting and raising the wreck. The first of these books is mainly concerned with the loss of the ship and with the story of previous attempts at salvage, but ends with an account of the re-discovery of the wreck by Mr Franzen and with what has been done since this took place in 1956. The second is more strictly a 'picture book', though the first is also well illustrated, and lets us see something of the wealth of remarkably fine carving already brought to the surface. When the ship is actually raised—let us hope this summer—the occasion will be one of the most important events in the history of nautical archaeology, not far removed from that of the discovery of the Nydam boat or her Norwegian successors.

R. G. ANDERSON

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